# Curriculum Vitae and List of Publications<sup>§</sup>

## **Personal Details**

Name: Marian Wiercigroch Nationalities: Polish, British

Present appointments: Sixth Century Chair in Applied Dynamics and

Director of CADR

Address: Centre for Applied Dynamics Research (CADR),

School of Engineering, University of Aberdeen,

Aberdeen AB24 3UE, Scotland, UK

Telephone(s): +44-(0)1224-272509 (W) 7817-145522 (M)

E-mail: m.wiercigroch@abdn.ac.uk

http: www.abdn.ac.uk/engineering/people/profiles/m.wiercigroch

## Summary

After completion of undergraduate and doctoral studies (1991) at the best Polish university for engineering, Silesian University of Technology, I was invited to join three research groups at Aberdeen, Durban-Westville and Berkeley as a postdoctoral researcher. I chose the University Aberdeen due to its track record in engineering dynamics (Prof ADS Barr FRSE) and an interesting project on the dynamics of ultrasonic drilling of hard materials supervised by Prof MA Player FRSE.

In 1992 I returned to my native Poland to take up a lectureship at SUT and a year later won European Community Technology Fellowship to further his research links with Aberdeen. The culmination of this period was winning a Senior Fulbright Scholarship to the University Delaware (1994), a highly prestigious and competitive distinction as only 6 scholarships were awarded for 350 applications from Poland. The same year, I was appointed as a lecturer at Aberdeen University. Between 1994 and 1995, I won two grants from the Office of Naval Research to work on the nonlinear dynamics of acoustic wave propagation in deep oceans.

In Aberdeen I was swiftly promoted through the ranks to Senior Lecturer (1999), Reader (2000) and Personal Chair (2002), and to Sixth Century Chair in Applied Dynamics (2006). Founding director of an internationally renowned Centre for Applied Dynamics Research (CADR), which since its conception in 2003 has attracted in excess of 100 members including world leaders in dynamics such as Profs Celso Grebogi FRSE and Michael Thompson FRS.

I am author of 9 patents, 15 book chapters, over 320 journal and conference papers, and numerous technical publications and reports in the broad area of vibration and applied dynamics. I edited three books and 16 special issues of premier academic journals. I supervised over 70 PhD students and postdoctoral researchers, hosted over 150 international research visitors including over two dozens of CSC scholars, organized and co-organised a dozen international conferences (e.g. Euromech 425 in 2001 and IUTAM Symposium and 2010), large number of international symposia and short courses including CISM Advanced Course on (2004, Udine). I delivered over 150 invited seminars and 50 keynote and plenary lectures at major international conferences. I sit on a dozen editorial boards of peer review journals and since 2013 I have been the Editor-In-Chief of International Journal of Mechanical Sciences, which has enjoyed an unprecedented rise in size and stature during my tenure. I served as a REF panel member in 2014 and 2021.

I raised in total over £10m research and development funding from government, research councils, charities and industry to support his research group with diverse activities including impact dynamics,

<sup>§</sup>Last update on 14 October 2022

fluid-structure interactions, dynamic fracture and fatigue, acoustic wave propagation, marine renewable energy and new downhole drilling methods. I am an inventor of new and patented downhole drilling technology called Resonance Enhanced Drilling (RED) and in 2018 I have founded a spin-off company, iVDynamics Ltd, where I am the Chief Technology Officer. I have established at Aberdeen four unique experimental laboratories allowing to investigate complex nonlinear dynamic interactions in mechanical systems with the focus on green energy generation.

# **Higher Education and Qualifications**

- CEng; Institution of Mechanical Engineers, 2009
- DSc; University of Aberdeen, 2008; Nonlinear Dynamics
- CMath; Institute of Mathematics and its Applications, 2003
- ScD; Silesian University of Technology, Gliwice, Poland; 1987-1990; Applied Mechanics; degree with distinction
- MEng; Silesian University of Technology, Gliwice, Poland; 1980-1985; Mechanical Engineering; first class

## **Awards and Distinctions**

2022	Super Reviewer of Category A+ Submissions for Polish Research Assessment Framework
2021	REF Panel Member for UoA 12: Engineering
2021	Distinguished Professor, 100 Talents in Hubei Province, Yashan University, China
2020	Winner of Scottish Knowledge Transfer Champion Competition, UK
2019	Winner of Success with Industry Competition, University of Aberdeen, UK
2019	External Council Member, Polish Academy of Sciences, Warsaw, Poland
2018	Distinguished Invited Professor, Bariloche Atomic Centre and Institute Balseiro, Argentina
2017	Honorary Professor, Perm National Research Polytechnic University, Russia
2014	REF Panel Member for UoA 15: General Engineering
2013	DSc honoris causa, Lodz University of Technology, Poland
2013	International Journal of Mechanical Sciences, Editor-In-Chief
2010	Honorary Professor, Harbin University of Technology, China
2009	Fellow of the Royal Society of Edinburgh
2009	Fellow of the Institution of Mechanical Engineers
2006	Sixth Century Chair in Applied Dynamics, Aberdeen, UK
2004-06	Member of the Council, Institute of Mathematics and its Applications, UK
2003	Fellow of Institute of Mathematics and its Applications, UK
1994	Senior Fulbright Fellow

# **Memberships of Professional Bodies**

- American Society of Mechanical Engineers (1995-2008)
- European Mechanics Society (2001 →)
- Institute of Mathematics and its Applications (2003 →)
- Institution of Mechanical Engineers (2009 →)
- London Mathematical Society (2000-2010)
- New York Academy of Sciences (1995-1999)
- Polish Society of Mechanical Engineers (1985-1994)
- Polish Society of Theoretical and Applied Mechanics (1986-1994)
- Polish Society of Arts and Sciences Abroad (2000 →)
- Society for Industrial and Applied Mathematics (1997-2005)

## **Employment History**

2021/01 →	Distinguished Visiting Professor; Yashan University, China
2019/10 →	Director, Founder and Chief Technology Officer; iVDynamics Ltd, Aberdeen
2019/01 –2021/09	Research Professor; Perm National Polytechnical University, Perm, Russia
2003/03 →	<b>Director of Centre for Applied Dynamics Research</b> ; School of Engineering, University of Aberdeen
1994/01 →	<b>6</b> <sup>th</sup> Century Chair in Applied Dynamics (2006-;), Head of Engineering (2003-2007), Professor (2002), Reader (2000), Senior Lecturer (1999), Lecturer (1994); School of Engineering, University of Aberdeen
2011/03 – 2013/09	Director of Nonlinear and Complex Group; Northern Research Partnership
2009/04 – 2015/08	<b>Director of Internationalisation</b> ; College of Physical Sciences, University of Aberdeen
1995/09 – 1995/12	<b>Visiting Professor</b> ; Department of Civil & Environmental Engineering and College of Marine Studies, University of Delaware, US
1994/08 – 1995/05	<b>Senior Fulbright Scholar</b> ; Department of Civil and Environmental Engineering, University of Delaware, US
1993/06 – 1993/09	EC Research Fellow; Department of Engineering, University of Aberdeen
1992/01 – 1993/05	<b>Lecturer</b> ; Faculty of Mechanical Engineering, Silesian University of Technology, Poland
1991/01 – 1991/12	Research Fellow; Department of Engineering, University of Aberdeen
1990/09 – 1990/12	<b>Research Associate</b> ; Faculty of Mechanical Engineering, Silesian University of Technology, Poland
1989/02 – 1990/02	Consultant; Machine Tool Company "Ponar-Defum", Dabrowa Gornicza, Poland
1985/09 – 1990/08	<b>Research Assistant</b> ; Faculty of Mechanical Engineering, Silesian University of Technology, Poland

# **Research Interests**

Nonlinear dynamics and stability; chaotic and stochastic dynamics; mathematical modelling; application of numerical methods to engineering; mechanics; mechanical vibration; vibro-impact systems; vortex induced vibration; dynamics and control of smart structures; dynamics of machine tools and cutting processes; fracture; friction and tribology; design; fatigue; machining, manufacturing, underwater acoustics; oil and gas drilling; renewable energy.

## **Awarded Research and Development Grants**

- 1. Nonlinear Dynamics of Particle Jet Drilling of Geothermal Wells, Royal Society International Exchanges 2019 Cost Share (NSFC), 2019, £12,000; principal investigator.
- 2. Applications AI techniques to well integrity logging data, OGIC with Read Cased Hole Ltd, 2019, £74,881; principal investigator.
- 3. Design and test of Resonance Enhanced scale milling for hard scales Phase 2, OGIC with Welltec, 2019-2020, £149,879; principal investigator.

- 4. Heterogeneous Drilling: Hybrid Drill-bits with shearing and gouging Phase 2, OGIC with Varel, 2018-2019, £218,617; principal investigator.
- 5. Reducing coring costs whilst improving core quality and recovery by applying Resonance Enhanced Drilling, OGIC with VBPR Ltd, 2018, £15,854; principal investigator.
- Modelling and Analysis of Jarring Tools, OGIC with Rotojar, 2017-2018, £127,734; principal investigator
- 7. Experiments with Downhole Turbine to Develop a New RED Based Milling Tool for Hard Scales Phase 1, OGIC and Welltec, 2017, £52,999; principal investigator.
- 8. Development of Calibrated Models of Bit-rock Interactions with Perspective of New Technology for Hybrid Drill-bit Phase 1, OGIC and Varel, 2017, £39,601; principal investigator.
- 9. Resonance Enhanced Drilling: Phase 2, ITI Energy, 2012-19, £1,565,875; principal investigator.
- 10. Modelling and Analysis of BHA and Drill-string Vibration, BG Group plc, 2011-15, £312,048; principal investigator.
- 11. New Constitutive Impact Laws for Dynamical Systems, a joint project with St. Petersburg State University, The Royal Society of London, 2010-2012, £12,000; principal investigator
- 12. Resonance Enhanced Drilling: Phase 1, ITI Energy, 2009-11, £1,013,000; principal investigator with Drs S Aphale, DC Hendry, EE Pavlovskaia as co-investigators.
- 13. Nonlinear Dynamics for Design and Advanced Engineering Technologies: Application to Efficient Deep-hole Drilling, a joint project with IIT Kanpur, The Royal Academy of Engineering, 2009, £11,965; principal investigator
- 14. Resonance Enhanced Drilling: Phase 0, ITI Energy, 2008-2010, £850,000; principal investigator with Drs A Akisanya, J Harrigan, DC Hendry, EE Pavlovskaia as co-investigators.
- 15. Multi-scale Modelling of Dry Friction, a joint project with TU Lodz, The Royal Society of London, 2007-2008, £12,000; principal investigator
- 16. Smart Structures for Vibration Control of Rotor Systems, The Royal Society of London, Incoming Fellowship from China: Dr Shimin Wang; 2007-2008, £12,830; principal investigator
- 17. Application of Nonlinear Normal Modes to Offshore Risers, KTP with MCS International, 2007-2010, £210,814; principal investigator with Drs Pavlovskaia and Guo as co-investigators
- 18. Pre-investment study on Resonance Enhanced Drilling, ITI Energy Ltd, 2006, £32,600; principal investigator
- 19. Nonlinear Dynamics of Offshore Risers, a joint project with University with Sao Paulo, The Royal Society of London, 2006-2007, £12,000; principal investigator
- 20. Resonance Enhanced Drilling, Knowledge Transfer Grant, Scottish Enterprise, 2005-2006, £25,905; principal investigator
- 21. Commercialisation of Rotary Percussion Drilling, Scottish Enterprise Grampian, 2005-2006, £11,690; principal investigator
- 22. Nonlinear Dynamics of Rotating Machinery: Design, Control and Condition Monitoring, a joint project with University with Ljubljana, The Royal Society of London, 2003-2005, £12,000; principal investigator
- 23. Ultrasonic Rock Corer for use in Planetary Missions, European Space Agency, 2002-2005, £10,000; co-investigator with Dr J Parnell as principal investigator
- 24. Nonlinear Dynamics and Rock Contact Fracture Mechanics in Modelling of Vibration Enhanced Drilling, EPSRC, 2002-2006, £270,720; principal investigator with Prof SE Mikhailov as coinvestigator.
- 25. Nonlinear Dynamics and Rock Contact Fracture Mechanics in Modelling of Vibration Enhanced Drilling, supercomputing support at CSAR Manchester, EPSRC, 2002-2006, £9,000; principal investigator

- 26. Nonlinear Dynamics and Chaos in Mechanical Systems, Aberdeen University Research Committee, 2000-2002, £10,000; principal investigator
- 27. Control of Vibration by Smart SMA-Embedded Composite Structures, Rolls-Royce, 2000-2003, £18,000; principal investigator
- 28. High Efficiency Percussive Drilling Tool Driven by Beat Frequency, Engineering and Physical Sciences Research Council, 2000-2001, £49,526; principal investigator
- 29. Control of Vibration by Smart SMA-Embedded Composite Structures I, Engineering and Physical Sciences Research Council, 1999-2002, £49,928; principal investigator with Prof MP Cartmell as co-investigator
- 30. Control of Vibration by Smart SMA-Embedded Composite Structures II, Engineering and Physical Sciences Research Council, 1999-2002, £172,533; co-investigator with Prof MP Cartmell as principal investigator
- 31. Control of Vibration by Smart SMA-Embedded Composite Structures III, Engineering and Physical Sciences Research Council, 1999-2002, £22,978; co-investigator with Prof MP Cartmell as principal investigator
- 32. Enhanced Resonance Drilling: Faster Cost Effective Drilling in Geological Formations, Centre for Marine and Petroleum Technology, 1998-1999, £49,950; principal investigator with Dr PWJ Glover as co-investigator
- 33. Application of Nonlinear Dynamics of Rotor Systems to Ultrasonic Drilling, The Royal Society of London, 1998-1999, £12,800; principal investigator
- 34. An Influence of Stochastic and Chaotic Loading of Fatigue Life of Mechanical Elements, Aberdeen University Research Committee, 1997-2000, £30,000; principal investigator with WF Deans as co-investigator
- 35. Chaotic Dynamics in Cutting Process, The British Council; British-Polish Scientific Research Programme, 1997-1998, £8,600; principal investigator
- 36. Nonlinear Dynamics and Chaos of Mechanical Systems with Dry Friction, Aberdeen University Research Committee, 1996-1997, £19, 500; principal investigator
- 37. Chaos in Mechanical, Acoustical and Other Engineering Systems, The U.S. Office of Naval Research Grant, 1995-1996, £17,000; principal investigator
- 38. Nonlinear Dynamics of Mechanical Systems with Discontinuities, The Fulbright Commission Research Grant, Washington D.C., 1994-1995, £19,000; principal investigator
- 39. Nonlinear Dynamics of Ultrasonic Machining, EC Science and Technology Grant, Aberdeen, 1993, £9,000; principal investigator
- 40. Investigation into Dynamics of Machine Tools Using FEM, Rafamet Ltd G, 1993, £70,000; co-investigator with Prof T Tyrlik as principal investigator
- 41. Chaotic Dynamics of the Machine Tool Cutting Process System, Polish National Science Foundation, 1992-1994, £75,000; principal investigator
- 42. Theoretical and Experimental Study of Statics and Dynamics of Horizontal Boring and Milling Machine WFS 130 N type, Ponar-Defum Inc, Gliwice, 1990-1992, £130,000; principal investigator
- 43. Theoretical and Experimental Study of Statics and Dynamics of Horizontal Boring and Milling Machine WFM 100 N type, Ponar-Defum Inc., Gliwice, 1989-1992, £90,000; principal investigator
- 44. Computer Aided Design of Geometry and Technology of Bevel Gears using OERLIKON Spiromatic II method, Rafamet Ltd Grant, Gliwice, 1988-1991, £170,000; co-investigator with Prof T Tyrlik as principal investigator
- 45. Experimental Study of High Frequency Hydraulic Valves; Ponar-Wadowice Company Grant No NB-709; 1987-1990, £130,000; co-investigator with Dr E Bliznicki as principal investigator

46. Dynamics of a Mining Unit KSP Type, Polish National Science Foundation, Grant No NB-138, Gliwice, 1986-1990, £140,000; co-investigator with Prof T Tyrlik as principal investigator

In addition I have won over £20,000 of small travel and conference grants which are listed next. The Royal Society of Edinburgh (2008, £1450; 2013, £950); The British Council UK-Poland Joint Programme (2007, £1630); The Royal Academy of Engineering Grants (2005, £900; 2003, £700); The London Mathematical Society Grants (2001, £4500; 2000, £484; 1999, £720); The Royal Society of London (2006, £2,360; 2001, £1010; 1999, £1,110; 1999, £1,310; 1997, £576); Aberdeen University Research Initiative Grant (2000, £1,000); The British Council UK-Dutch Joint Scientific Research Programme (1997, £1,300)

# Postgraduate/Postdoctoral Supervision

#### **Graduated PhD Students**

- 1. Mohammad Khodadadi, Modelling of downhole anti-vibration tool for oil well drilling, sponsored Engineering Technology Partnership and Tomax, sole supervisor, 2022, sole supervisor
- 2. Ali Hassanirad, Fatigue of offshore tabular structures, self-funded, 2022, sole supervisor
- 3. James McClean, *Control of nonlinear systems motivated by linear control*, sponsored by the University of Aberdeen, 2022, co-supervisor
- 4. Nina Yari, *Mechanics of drag drill-bit and rock interactions*, sponsored by the Scottish Enterprise and the University of Aberdeen, 2019, sole supervisor
- 5. Olamide Ajala, *Mechanical actuator for the Resonance Enhanced Drilling*, sponsored by the University of Aberdeen and the Scottish Enterprise, 2019, co-supervisor
- 6. Victoria Kurushina, *Fluid nonlinearities for calibrated VIV wake oscillator models*, sponsored by Global Education Program and Industrial University of Tyumen (Russia), 2018, co-supervisor
- 7. Beenish Ayaz, *Improving routing performance of underwater wireless sensor networks*, 2018, sponsored by the National Subsea Institute, 2018, primary supervisor
- 8. Antonio Chong, *Numerical modelling and stability analysis of non-smooth dynamical systems vie ABESPOL*, sponsored by the Government of Ecuador, 2016, sole supervisor
- 9. Andrey Postnikov, *Wake oscillator and CFD in modelling of VIVs*, the Scottish Enterprise and the University of Aberdeen, 2016, co-superviso
- 10. Vahid Vaziri, *Dynamics and control of nonlinear engineering systems*, sponsored by BG Group and the Scottish Enterprise, 2015, sole supervisor
- 11. Marcin Kapitaniak, *Nonlinear dynamics of drill-strings*, sponsored the University of Aberdeen and the Scottish Enterprise, 2015, sole supervisor
- 12. Mukthar Sayah, *Nonlinear time series analysis applied to resonance enhanced drilling*, self-funded and the Scottish Enterprise, 2015, primary supervisor
- 13. Anna Najdecka, Rotating dynamics of pendula systems for energy harvesting from ambient vibrations, sponsored by the Northern Research Partnership and the University of Aberdeen, 2013, sole supervisor
- 14. Marcos Silveira, A comprehensive model of drill-string dynamics using Cosserat rod theory, sponsored by the University of Aberdeen and the Scottish Enterprise, 2012, sole supervisor
- 15. Marko Keber, *Vortex-induced vibration of offshore risers: Theoretical modelling and analysis*, sponsored by the University of Aberdeen and the Scottish Enterprise, 2012, sole supervisor
- 16. Richard Morrison, *Dynamics and stability of parametrically excited oscillators*, self-funded, 2012, sole supervisor
- 17. Elena Sitnikova, *Dynamic behaviour of an impact system with SMA restraint*, sponsored by the University of Aberdeen, 2010, co-supervisor
- 18. Olusegun Ajibose, *Nonlinear dynamics and contact fracture mechanics of high frequency percussive drilling*, self-funded and partially sponsored by ITI Energy, 2009, primary supervisor

- 19. Bryan Horton, *Rotational motion of pendula systems for wave energy extraction*, sponsored by EPSRC, 2009, sole supervisor
- 20. Alexander Warren, *Empirical shear assessment of reinforced concrete bridge members*, sponsored by EPSRC, 2008, primary supervisor
- 21. Tamas Bodai, *Nonlinear ray dynamics in underwater acoustics*, sponsored by the University of Aberdeen, 2008, sole supervisor
- 22. Xu Xu, *Nonlinear dynamics of parametric pendulum for wave energy extraction*, self-funded and partially sponsored by the European Space Agency, 2005, sole supervisor
- 23. Chee-Hoe Foong, *Influence of fatigue crack growth on the dynamics of engineering components and structures*, sponsored by the University of Aberdeen, 2004, primary supervisor
- 24. Evgeni Karpenko, *Nonlinear dynamics of a Jeffcott Rotor with imperfections*, sponsored by EPSRC and Rolls-Royce, 2003, sole supervisor
- 25. Ko-Choong, Woo, *Nonlinear dynamics of vibro-impact ground penetration systems*, sponsored by the University of Aberdeen, 2002, co- supervisor

## Supervised Postdoctoral Researchers and Visiting PhD Students

- 26. Dr Tamer Ahmed El-Sayed El-Sayed, Nonlinear dynamics of rotor systems, from Helwan University, sponsored by the Egyptian Government, 2020/03 2021/03
- 27. Dr Heba Heba Hamed Abd El-Aziz El-Mongy, Nonlinear interactions between BHA and borehole, from Helwan University, sponsored by the Egyptian Government, 2020/03 2021/03
- 28. Andres Gluckberg, external PhD student, Dynamics of SMAs structures, sponsored by Atomic Institute Bariloche, based in Balseiro Institute, Argentina, 2018/11 2021/03
- 29. Dr Zhifeng Hao, visiting postdoctoral researcher, Dynamics and control of new non-smooth dynamical systems for energy harvesting, from Jinan University, China, sponsored by the China Scholarship Council, China, 2020/01–2020/12
- 30. Dr Dan Wang, visiting postdoctoral researcher, Nonlinear interactions of rotating beams with fluid, sponsored by the China Scholarship Council, from Jinan University, China, 2020/01–2020/12
- 31. Dr Guan Li, visiting postdoctoral researcher, Numerical modelling of dynamic fracture of rocks, from Xi'ian Jiatong University, China, sponsored by the China Scholarship Council, China, 2020/01–2021/06
- 32. Abd Elamir Jaffal, MSc student, Design and testing RED scale milling tools, supported by the OGIC and Welltec, sole supervisor, 2019/08 2020/08
- 33. Daping Xu, visiting PhD student, Mechanics of rock cutting, supported by the China Scholarship Council, from Southwest Petroleum University, Chengdu, China, sole supervisor, 2019/07 2020/07
- 34. Li Liu, visiting PhD student, Nonlinear models in oil and gas economics, supported by the China Scholarship Council, from Southwest Petroleum University, Chengdu, China, sole supervisor, 2019/07 2020/07
- 35. Dr Tiping Tang, visiting postdoctoral researcher, Dynamic properties of rocks, supported by the China Scholarship Council, from Southwest Petroleum University, Chengdu, China, sole supervisor, 2019/07 2020/07
- 36. Dou Xie, visiting PhD student, supported by the China Scholarship Council, from Southwest Petroleum University, Chengdu, China, sole supervisor, 2018/09 2019/07
- 37. Dimitri Costa, visiting PhD student, Nonlinear dynamics of engineering systems, sponsored by CAPES, from the Federal University of Rio de Janeiro, Brazil, sole supervisor, 2018/08 2019/07
- 38. Dr Siqi Li, visiting postdoctoral researcher, Dynamic interactions in the borehole, supported by the China Scholarship Council, from Northeast Petroleum University Daqing, Heilongjiang, China, sole supervisor, 2018/08 2019/07

- 39. Weicheng Li, visiting PhD student; Nonlinear dynamic interactions in oil and gas hydraulic systems, sponsored by the China Scholarship Council; from the Yashang University, China, 2017/09 2018/08
- 40. Dr Leike Zhang, visiting postdoctoral researcher, Dynamics of mechanical engineering systems, sponsored by the China Scholarship Council, from the Taiyuan University of Technology, China, 2016/12 2017/06
- 41. Dr Shuhui Fu, visiting postdoctoral researcher, Nonlinear dynamics of Chua's circuits, sponsored by the China Scholarship Council; from the Zhengzhou University, China, 2016/08 2017/07
- 42. Dr Lijun Pei, visiting postdoctoral researcher, Development of analytical non-smooth dynamics; supported by the China Scholarship Council, from the Zhengzhou University, China, 2016/04 2017/04
- 43. Deepak Mallikurjana, part-time PhD student, Design of rotary steerable system for RED technology, sponsored by the Scottish Enterprise, sole supervisor, 2016/08 2019/11
- 44. Dr Shun Zhong, visiting postdoc, Dynamics of impacting systems, supported by the China Scholarship Council, from the Tianjing University, China, 2015/12 2016/11
- 45. Ruinan Ji, visiting PhD student; Dynamics of piezoelectric systems, sponsored by the Nanjing University of Aeronautics and Astronomics, China, 2015/09 2016/02
- 46. Dr Marcin Kapitaniak, postdoctoral researcher; various drilling projects sponsored by the Scottish Enterprise, OGIC and industry, sole supervisor, 2015/11 2020/09
- 47. Dr Vahid Vaziri, postdoctoral researcher, various drilling projects sponsored by the Scottish Enterprise, OGIC and industry, sole supervisor, 2015/11 2020/09
- 48. Dr Yue Yuan, visiting postdoctoral researcher, Dynamics of non-smooth dynamical systems, sponsored by the China Scholarship Council, from the Southwest Jiatong University, China, 2015/03 2016/02
- 49. Zhifeng Hao, visiting PhD student, Application of the SD oscillator to aircraft suspension systems, sponsored by the Harbin Institute of Technology, China, 2014/09 2015/08
- 50. Dan Wang, visiting PhD student, Fluid-structure interactions in rotor systems, sponsored by the China Scholarship Council, from Harbin Institute of Technology, China, 2014/09 2015/08
- 51. Dr Haibo Jiang, visiting postdoctoral researcher, Stability analysis of non-smooth dynamical systems, sponsored by the Jiangsu Province Office of Education of China, from Yancheng Teachers University, China, 2014/02 2015/01
- 52. Yao Yan, PhD student, Regenerative chatters in plunge and transverse grinding and control for their suppression, sponsored by the China Scholarship Council, from Tongji University, China, 2012/11 2013/11
- 53. Dr Amjad Al-Sakarneh, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2012/04 2012/07
- 54. Dr Joseph Paez Chavez, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2012/04 2014/04
- 55. Dr Yang Liu, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2010/04 2013/09
- 56. Dr Olusegun Ajibose, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2010/03 2013/09
- 57. Dr Krisnan Nandakumar, postdoctoral researcher, Modelling and analysis of BHA and drill-string vibration, sponsored by BG Group plc, 2010/01 2011/12
- 58. Dr Marko Keber, postdoctoral researcher, Resonance Enhanced Drilling; sponsored by ITI Energy, 2009/11 2014/03
- 59. Dr James Ing, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2009/11 2010/10
- 60. Dr Zhiqiang Gu, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2009/11 2010/10
- 61. Dr Alan J Fenwick, postdoctoral researcher, Resonance Enhanced Drilling; sponsored by ITI Energy, 2008/10 2009/06

- 62. Dr Summet Aphale, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2008/06 2009/06
- 63. Dr Lifeng Ma, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2008/06 2009/06
- 64. Dr Gyorgy Karolyi, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2008/02 2009/09
- 65. Dr Jerzy L Wojewoda, postdoctoral researcher, Resonance Enhanced Drilling, sponsored by ITI Energy, 2008/02 2012/01
- 66. Ying Du, visiting PhD student, Application of non-smooth dynamics to neurodynamics, sponsored by the China Scholarships, from of Beijing University Aeronautics and Astronomics, 2007/11 2008/10
- 67. Fang Han, visiting PhD student, Modelling of neurodynamics of human brain, sponsored by the China Scholarships, from of Beijing University Aeronautics and Astronomics, 2007/11 2008/10
- 68. Dr Narakorn Srinil, postdoctoral researcher, Application of nonlinear normal modes to vortex induced vibrations of offshore risers, sponsored by the DTI and MCS International, 2007/09 2010/01
- 69. Dr Shimin Wang, visiting postdoctoral researcher, Smart structures for vibration control of rotor systems, sponsored by the Royal Society KC Wong Fellowship, 2007/07 2008/06
- 70. Dr Alan Fenwick, postdoctoral researcher, Dynamics of underwater acoustics, sponsored by the Royal Academy of Engineering, 2006/02 2006/09
- 71. Dr Silvio de Souza; visiting postdoctoral researcher, Dynamics of non-smooth mechanical systems, sponsored by the Brazilian Science Foundation, 2005/11 2006/05
- 72. Dr Chee-Hoe Foong; postdoctoral researcher; Dynamically induced fatigue; sponsored by the University of Aberdeen and EPSRC, 2004/12 2005/05
- 73. Dr Qinjie Cao, postdoctoral researcher, Nonlinear dynamics and contact fracture mechanics in modelling of vibration enhanced drilling, sponsored by EPSRC and the University of Aberdeen, 2003/10 2007/03
- 74. Prof Anton Krivtsov, postdoctoral researcher, Nonlinear dynamics and contact fracture mechanics in modelling of vibration enhanced drilling, sponsored by EPSRC, 2002/10 2005/12
- 75. Dr Ekaterina Pavlovskaia, postdoctoral researcher, High efficiency percussive drilling tool driven by beat frequency and Nonlinear dynamics and contact fracture mechanics in modelling of vibration enhanced drilling, both projects sponsored by EPSRC, 2000/09 2003/09
- 76. Dr Arek Zak, postdoctoral researcher, Control of vibration by smart SMA-embedded composite structures, supported by EPSRC, co-supervision, 2000/06 2003/06
- 77. Prof Wieslaw Ostachowicz, postdoctoral researcher, Control of vibration by smart SMA-embedded composite structures, sponsored by EPSRC, co-supervision, 2000/06 2003/06
- 78. Dr Jerzy Wojewoda, postdoctoral researcher, Enhanced resonance drilling, sponsored by the Centre for Marine and Petroleum Technology, 1999/02 1999/12
- 79. Dr Anton M Krivtsov, postdoctoral researcher, Application of nonlinear dynamics of rotor systems to ultrasonic drilling, sponsored by the Royal Society, 1999/01 2000/01

## Current Postgraduate Students and Postdoctoral Researchers

- 80. Ingrid Pires, visiting PhD student, Nonlinear dynamics of drill-stings, sponsored by CAPES, from the Catholic University of Rio de Janeiro, Brazil, sole supervisor, 2022/05 →
- 81. Leandro Augusto Martins, visiting PhD student, Nonlinear dynamics of rotating systems, sponsored by CAPES, Federal University of Uberlândia, Brazil, sole supervisor, 2021/12 →
- 82. Yi Yuan, visiting PhD student, Nonlinear dynamics of complex media, from Zhejiang University, China, sponsored by the China Scholarship Council, sole supervisor, 2021/12 →

- 83. Eduardo Villela Machado dos Reis, visiting PhD student, Nonlinear dynamics of spatio-temporal systems, sponsored by CAPES, from the Federal University of Rio de Janeiro, Brazil, sole supervisor, 2021/09 →
- 84. Dr Rui Yang, visiting postdoctoral researcher, Dynamics and control of rotating systems with roller bearings, from Nanjing University of Science and Technology, China, sponsored by the China Scholarship Council, sole supervisor, 2021/09 →
- 85. Ms Alicia Gonzalez, joint PhD student, Nonlinear energy harvesting, sponsored by Aberdeen-Curtin Alliance, primary supervisor with Prof I Howard from Curtin University (50%), 2019/07 →
- 86. Agustin Hernandez, external PhD student, Coupled oscillators in nuclear reactors, sponsored by Atomic Institute Bariloche, based in Balseiro Institute, Argentina, primary supervisor, 2018/11 →
- 87. Idin Nazzari, a part-time PhD student, Dynamics of systems with impacts and friction, supported by the OGIC and self-funded, primary supervisor,  $2018/01 \rightarrow$

# **Undergraduate Teaching**

2017/09 →	Dynamics 2 (EM40JM); 15 credits course (22 one hour lectures and 11 one hour tutorials)
2016/09 →	Fearsome Engines (SX1007 and SX15007); 15 credits course (22 one hour lectures and continuous assessment)
2014/09 →	Nonlinear Mechanics (EG4529); 15 credits course (22 one hour lectures and 11 one hour tutorials)
2002/01 – 2005/09	Advanced Engineering Analysis and Methods 3 (EG5591); 10 credits course (24 one hour lectures and 12 one hour tutorials)
2001/09 – 2005/09	Advanced Topics for MEng Study (EG5085); 15 credits course comprising two exercises involving analytical self-study
2000/09 – 2002/09	Advanced Engineering Analysis and Methods 2 (EG5080); 20 credits course (48 one hour lectures and 12 one hour tutorials)
1999/02 – 2000/09	Engineering Design and Practice 4A - Dynamics (EG3573/3574); 10 credits course; 18 hours module on design of vibration isolation system
1999/02 – 2000/09	Dynamics 1 (EG3532); 15 credits course (36 one hour lectures and 6 one hour tutorials)
1996/02 – 2003/09	Dynamics 2 (EG4036); 15 credits course (36 one hour lectures and 6 one hour tutorials)
1994/09 – 2001/09	Thermodynamics 1 (EG3536); 15 credits course (36 one hour lectures and 6 one hour tutorials)
1994/09 – 2001/09	Engineering Design and Practice 4A - Thermodynamics (EG3573/ 3574); 15 credits course (36 one hour lectures and 12 one hour tutorials)
1994/09 – 2007/09	Engineering Design and Practice 5 (EG4574); 15 credits course; an intensive and multi-disciplinary design exercise for a group of up to eight students
1994/09 →	Undergraduate Project Supervision; I have supervised over 160 project students

# **Administrative Duties**

Oct 18 – Sept 22	Member of Senatus Academicus; Aberdeen University
March 15 – May 16	Applied Dynamics Research Group Leader; School of Engineering, Aberdeen University
Sept 2014 →	Nonlinear Mechanics (EG4529) course co-ordinator; School of Engineering, Aberdeen University
October 2013 $\rightarrow$	RV Jones Seminar Series Convener; Aberdeen University
June 2013 →	Convener of CoPS Internationalisation Committee; College of Physical Sciences, Aberdeen University
March 11 – Feb 14	Director of Nonlinear and Complex Dynamics Group; Northern Research Partnership
March 09 – April 15	Director of Internationalisation; College of Physical Sciences, Aberdeen University
Oct 2004 – April 09	Member of Senatus Academicus; Aberdeen University
Dec 03 – Sept 07	Member of Research and Commercialization Committee, College of Physical Sciences; Aberdeen University
Nov 03 – April 07	Head of Engineering; College of Physical Sciences; Aberdeen University
Oct 02 – Oct 03	Appraiser of mechanical engineering lecturing staff; Department of Engineering; Aberdeen University
Nov 01 – Oct 02	Advanced Engineering Analysis and Methods (EG5591) course co-ordinator; Department of Engineering; Aberdeen University
Jan 2001 →	Founder and Director of the Centre for Applied Dynamics Research; Aberdeen University
Jun 00 – Mar 01	Editor of the RAE submission for Dynamics, Control and Condition Monitoring Research Group; Department of Engineering; Aberdeen University
Jun 00 – May 01	Editor of the Departmental Research Review, Department of Engineering; Aberdeen University
Sept 99 – May 05	Member of the Programmes and Courses Committee; Department of Engineering; Aberdeen University
Sept 99 – Sept 00	Dynamics 1 (EG 3532) course co-ordinator; Department of Engineering; Aberdeen University
Sept 99 - Nov 01	Level 4 Co-ordinator; Department of Engineering; Aberdeen University
Sept 98 – Sept 02	Adviser of Studies; Aberdeen University
Sept 96 - Aug 98	Associate Adviser of Studies; Aberdeen University
Sept 96- Sept 97	Level 1 Co-ordinator; Department of Engineering; Aberdeen University
Sept 96-Sept 00	Dynamics 2 (EG 4036) course co-ordinator; Department of Engineering; Aberdeen University

Sept 96-Sept 01	Level 4 Project Poster (EG 4007) co-ordinator; Department of Engineering; Aberdeen University
Sept 95-Sept 10	Applied Dynamics Seminars co-ordinator; Department of Engineering; Aberdeen University
Sept 95-Sept 01	Member of the Student-Staff Consultative Committee; Department of Engineering; Aberdeen University
Sept 94 – Jan 00	Thermodynamics B (EG3534) course co-ordinator; Department of Engineering; Aberdeen University

#### **International Academic Visitors**

- 1. Ingrid Pires, visiting PhD student, Nonlinear dynamics of drill-stings, sponsored by CAPES, from the Catholic University of Rio de Janeiro, Brazil, 2022/05 →
- 2. Yi Yuan, visiting PhD student, Nonlinear dynamics of complex media, from Zhejiang University, China, sponsored by the China Scholarship Council, 2021/12 →
- 3. Mr Leandro Augusto Martins, visiting PhD student, Nonlinear dynamics of rotating systems, sponsored by CAPES, from the Federal University of Uberlândia, Brazil, 2021/12 →
- 4. Mr Eduardo Villela Machado dos Reis, visiting PhD student, Nonlinear dynamics of spatio-temporal systems, sponsored by CAPES, from the Federal University of Rio de Janeiro, Brazil, 2021/09 →
- 5. Dr Rui Yang, visiting postdoctoral researcher, Dynamics and control of rotating systems with roller bearings, from Nanjing University of Science and Technology, China, sponsored by the China Scholarship Council, 2021/09 →
- 6. Dr Tamer Ahmed El-Sayed El-Sayed, Nonlinear dynamics of rotor systems, from Helwan University, sponsored by the Egyptian Government, 2020/03 2021/03
- 7. Dr Heba Heba Hamed Abd El-Aziz El-Mongy, Nonlinear interactions between BHA and borehole, from Helwan University, sponsored by the Egyptian Government, 2020/03 2021/03
- 8. Dr Zhifeng Hao, visiting postdoctoral researcher, Dynamics and control of new non-smooth dynamical systems for energy harvesting, from Jinan University, China, sponsored by the China Scholarship Council, China, 2020/01 2020/12
- 9. Dr Dan Wang, visiting postdoctoral researcher, Nonlinear interactions of rotating beams with fluid, sponsored by the China Scholarship Council, from Jinan University, China, 2020/01 2020/12
- 10. Dr Guan Li, visiting postdoctoral researcher, Numerical modelling of dynamic fracture of rocks, from Xi'ian Jiatong University, China, sponsored by the China Scholarship Council, China, 2020/01
- 11. Dr Daping Xu; Mechanics of rock cutting; supported by the China Scholarship Council; a visiting PhD student from Southwest Petroleum University, China; 2019/07 2020/07
- 12. Ms Li Liu; visiting PhD student, Nonlinear models in oil and gas economics; supported by the China Scholarship Council a visiting PhD student from Southwest Petroleum University, China; 2019/07 2020/07
- 13. Dr Tiping Tang; visiting postdoctoral researcher, Dynamic properties of rocks, supported by the China Scholarship Council, from Southwest Petroleum University, Chengdu, China a visiting postdoctoral researcher from Southwest Petroleum University, China; 2019/07 2020/07
- 14. Mr Dimitri Costa; Nonlinear dynamics of engineering systems; sponsored by CAPES; a visiting PhD student from the Federal University of Rio de Janeiro, Brazil; 2018/08 2019/07
- Dr Siqi Li, Dynamic interactions in the borehole, supported by the China Scholarship Council; a visiting postdoctoral researcher from Northeast Petroleum University Daqing, China; 2018/08 – 2019/07

- 16. Prof Qilong Xue; New drilling technologies; supported by China University of Geosciences; funded by China University of Geosciences, Beijing, China; 1 June 2019 5 July 2019
- 17. Mr Weicheng Li; Nonlinear interactions in oil and gas hydraulic systems; supported by the China Scholarship Council; a visiting PhD student from the Yashang University, China; 1 September 2017 30 August 2018
- 18. Dr Leike Zhang; Dynamics of mechanical systems; supported by the China Scholarship Council; a visiting postdoc from the Taiyuan University of Technology; 15 December 2016 14 June 2017
- 19. Dr Shuhui Fu; Nonlinear dynamics of Chua's circuits; supported by the China Scholarship Council; a visiting postdoc from the Zhengzhou University, China; 1 August 2016 31 July 2017
- 20. Dr Lijun Pei; Analytical non-smooth dynamics; supported by the China Scholarship Council; a visiting postdoc from the Zhengzhou University, China; 15 April 2016 14 April 2017
- 21. Dr Shun Zhong; Dynamics of impacting systems; Tianjing University, China; sponsored by the China Scholarship Council; 15 December 2015 14 December 2016
- 22. Ruinan Ji, Dynamics of systems with piezoelements; Nanjing University of Aeronautics and Astronomics (NUAA), China; funded by the NUAA; 15 September 2015 14 February 2016
- 23. Dr Yue Yuan, Southwest Jiatong University, China; sponsored by the China Scholarship Council; 1 March 2015 to 28 February 2016
- 24. Professor Qinqjie Cao, Centre for Nonlinear Dynamics Research, Harbin Institute of Technology, China; funded by the China Research Council; 15 22 November 2014
- 25. Professor Alain Léger, CNRS, Laboratoire de Mécanique et d'Acoustique, France; funded by the CADR; 16 22 November 2014
- 26. Ms Dan Wang, Harbin Institute of Technology, China; sponsored by the China Scholarship Council; 13 September 2014 to 12 September 2015
- 27. Mr Zhifeng Hao, Nonlinear vibro-isolation systems; Harbin Institute of Technology, China; sponsored by the Harbin Institute of Technology, 12 September 2014 to 11 September 2015
- 28. Dr Haibo Jiang, Dynamics of non-smooth systems; Yancheng Teachers University, China; funded by the Jiangsu Province Office of Education of China
- 29. Professor Qinqjie Cao, Centre for Nonlinear Dynamics Research, Harbin Institute of Technology, China; funded by the China Research Council; 25 July 24 August 2013
- 30. Professor Qishao Lu, School of Aeronautical Science and Engineering, Beijing University of Aeronautics and Astronomics, China; funded by the China Scholarship Programme; 14 31 August 2013
- 31. Dr Fang Han, Dynamics of neuro systems; College of Information Science and Technology, Dongua University, China; funded by the Donghua University; 14 31 August 2013
- 32. Dr Ying Du, Nonlinear dynamics of small networks; School of Science, East China of Science and Technology, China; funded by the China Research Council; 25 July 24 August 2013;
- 33. Professor Zhiying Qin, School of Mechanical Engineering, Hebei University of Science and Technology, funded by the Hebei University of Science and Technology; 14 31 August 2013
- 34. Professor Zhuoqin Yang, School of Mathematics and Systems Science, Beijing University of Aeronautics and Astronomics, China; funded by the China Scholarship Programme; 14 31 August 2013
- 35. Professor Marcelo Savi, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the Federal University of Rio de Janeiro and the Centre for Applied Dynamics Research, 18 31 August 2013.
- 36. Dr Aline Souza de Paula, Department of Mechanical Engineering, University of Brasilia, Brazil; funded by the University of Brasilia and the Centre for Applied Dynamics Research, 25 July 25 August 2013.
- 37. Dr Rafal Rusinek, Division of Applied Mechanics, Technical University of Lublin, Poland; sponsored by the European Commission; 4 25 February 2013
- 38. Dr Sergey Kryzhevich, Department of Mathematics, St Petersburg State University, Russia; sponsored by the Royal Society; 5 12 December 2012

- 39. Mr Yao Yan, Department of Applied Mechanics, Tongji University, China; sponsored by the China Scholarship Council; 30 November 2012 29 November 2013
- 40. Dr Rafal Rusinek, Division of Applied Mechanics, Technical University of Lublin, Poland; sponsored by the European Commission; 12 August 3 September 2012
- 41. Professor Tomasz Kapitaniak; Division of Dynamics, Technical University of Lodz, Poland; funded by the CADR and TU Lodz; 24 31 May 2012
- 42. Dr Sergey Kryzhevich, Faculty of Mathematics and Mechanics, St Petersburg State University, Russia; funded by the Royal Society; 22 29 November 2011
- 43. Professor Sergey Pilyugin, Faculty of Mathematics and Mechanics, St Petersburg State University, Russia; sponsored by the Royal Society; 21 28 November 2011
- 44. Dr Krzysztof Kecik, Division of Applied Mechanics, Lublin University of Technology, Poland; sponsored by the European Commission; 10 October 10 November 2011
- 45. Mr Andrzej Weremczuk, Division of Applied Mechanics, Lublin University of Technology, Poland; sponsored by the European Commission; 10 October 10 November 2011
- 46. Dr Aline Souza de Paula, Department of Mechanical Engineering, University of Brasilia, Brazil; funded by the University of Brasilia and the Centre for Applied Dynamics Research, 30 July 26 August 2011.
- 47. Professor Marcelo Savi, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the Federal University of Rio de Janeiro and the Centre for Applied Dynamics Research, 15 21 August 2011.
- 48. Dr Flavio Viola, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the Federal University of Rio de Janeiro and the Centre for Applied Dynamics Research, 15 21 August 2011.
- 49. Professor S Narayanan, Indian Institute of Technology Madras, sponsored by the Centre for Applied Dynamics Research; 29 June 1 July 2011
- 50. Professor Jerzy Warminski, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 26 April 15 May 2011
- 51. Professor Bernard Brogliato, INRIA Grenoble-Rhone-Alpes, France; funded by the Centre for Applied Dynamics Research, 27 30 April 2011
- 52. Dr Sergey Kryzhevich, Faculty of Mathematics and Mechanics, St Petersburg State University, Russia; funded by the Royal Society; 5 19 October 2010
- 53. Professor Edwin Kreuzer, Department of Ocean Engineering, Hamburg University of Technology; funded by BG Group; 3 7 October 2010
- 54. Dr Marc-Andre Pick, Department of Ocean Engineering, Hamburg University of Technology; funded by BG Group; 3 7 October 2010
- 55. Mr Michael Steidl, Department of Ocean Engineering, Hamburg University of Technology; funded by BG Group; 3 7 October 2010
- 56. Professor Qishao Lu, School of Science, Beijing University of Aeronautics and Astronomics, China; funded by the China Scholarship; 18 31 July 2010
- 57. Professor Anindya Chaterjee; Department of Mechanical Engineering, Indian Institute of Technology Kharagpur, India; funded by the CADR and Indian Institute of Technology Kharagpur; 23 31 July 2010
- 58. Dr Marcelo Savi, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the Federal University of Rio de Janeiro and the CADR, 22 31 July 2010.
- 59. Professor Qinqjie Cao, Centre for Nonlinear Dynamics Research, Harbin Institute of Technology, China; funded by the China Research Council; 18 July 5 August 2010
- 60. Professor Jerzy Warminski, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by the European Commission; 24 July 8 August 2010
- 61. Professor Tomasz Kapitaniak; Division of Dynamics, Technical University of Lodz, Poland; funded by the CADR and TU Lodz; 23 31 July 2010
- 62. Dr Rafal Rusinek, Division of Applied Mechanics, Technical University of Lublin, Poland; sponsored by the European Commission; 21 July 2 August 2010

- 63. Professor S Narayanan, Indian Institute of Technology Madras, sponsored by the Centre for Applied Dynamics Research; 18 24 June 2010
- 64. Professor Soumitro Banerjee, Indian Institute of Technology Kharagpur, sponsored by the Centre for Applied Dynamics Research; 14 21 June 2010
- 65. Dr Pankaj Wahi, Indian Institute of Technology Kanpur, sponsored by the Royal Academy of Engineering; 5 June 31 July 2010
- 66. Miss Aline Souza de Paula, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the Federal University of Rio de Janeiro and University of Aberdeen, 20 July 2009 19 September 2009.
- 67. Dr Rafal Rusinek, Division of Applied Mechanics, Technical University of Lublin, Poland; sponsored by the University of Aberdeen; 21 27 June 2009
- 68. Dr Pankaj Wahi, Indian Institute of Technology in Kanpur, sponsored by the Royal Academy of Engineering; 15 June 22 July 2009
- 69. Professor Soumitro Banerjee, Indian Institute of Technology in Kharagpur, sponsored by the Royal Academy of Engineering; 9 15 June 2009
- 70. Dr Krzysztof Kecik, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 9 February to 8 March 2009
- 71. Professor Tomasz Kapitaniak; Division of Dynamics, Technical University of Lodz, Poland; funded by the Royal Society; 4 16 February 2009
- 72. Dr Przemyslaw Szuminski; Division of Dynamics, Technical University of Lodz, Poland; funded by the Royal Society; 3 16 February 2009
- 73. Professor Andrzej Stefanski; Division of Dynamics, Technical University of Lodz, Poland; funded by the Royal Society; 3 16 February 2009
- 74. Dr Rafal Rusinek, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 15 January to 9 February 2009
- 75. Professor Qinqjie Cao, Centre for Nonlinear Dynamics Research, Shijazhuang Railway Institute, China; funded by China Research Council; 12 January 6 February 2009
- 76. Mr Krzysztof Kecik, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 4 November to 3 December 2008
- 77. Mr Yuichi Yokoi; Department of Electrical Engineering, Kyoto University, Japan; funded by Universities of Kyoto and Aberdeen; 22 September 21 December 2008
- 78. Mr Arkadiusz Syta, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council; 9 24 September 2008
- 79. Professor Jerzy Warminski, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 4 19 August 2008
- 80. Professor Celso P Pesce, Department of Mechanical Engineering, University of Sao Paulo, sponsored by the Royal Society, 22 29 June 2008
- 81. Professor Carlos EN Mazzilli, Department of Civil and Structural Engineering, University of Sao Paulo, sponsored by the Royal Society, 21 28 June 2008
- 82. Professor Giuseppe Rega, Department of Structural and Geotechnical Engineering, University of Rome 'La Sapienza'; funded by the Royal Society, 10 15 June 2008
- 83. Dr Marcelo A Savi, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the University of Aberdeen, 27 April 8 May 2008
- 84. Dr Hiroshi Namada, Department of Complex Systems; Future University of Hokadate, Japan, funded by Future University Hokadate; 9 12 March 2008
- 85. Dr Ken Umeno, RIKEN Institute, Japan, funded by RIKEN Institute; 9 12 March 2008
- 86. Professor Yoshisuke Ueda, RIKEN Institute, Japan, funded by RIKEN Institute; 9 12 March 2008
- 87. Dr Oleg Gendelman, Department of Mechanical Engineering, Technion, Israel; funded by the Royal Society of Edinburgh; 21 February 5 March 2008
- 88. Dr Rafal Rusinek, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 14 February to 10 March 2008

- 89. Mr Yuichi Yokoi; Department of Electrical Engineering, Kyoto University, Japan; funded by Universities of Kyoto and Aberdeen; 4 7 March 2008
- 90. Professor Andrzej Stefanski; Division of Dynamics, Technical University of Lodz, Poland; funded by the Royal Society; 11 21 February 2008
- 91. Professor Grzegorz Litak, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 14 21 January 2008
- 92. Miss Ying Du, School of Science, Beijing University of Aeronautics and Astronomics, China; funded by the China Scholarship; 20 November 2007 19 November 2008
- 93. Miss Fang Han, School of Science, Beijing University of Aeronautics and Astronomics, China; funded by the China Scholarship; 20 November 2007 19 November 2008
- 94. Miss Aline Souza de Paula, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the University of Aberdeen, 20 21 August 2007
- 95. Professor Jerzy Warminski, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 29 July 19 August 2007
- 96. Dr Shimin Wang, School of Science, Beijing University of Aeronautics and Astronomics, China; funded by the Royal Society; 1 July 2007 30 June 2008
- 97. Mr Cesar Sanches, Department of Civil and Structural Engineering, University of Sao Paulo, sponsored by the Royal Society, 12 July 1 November 2007
- 98. Mr Arkadiusz Syta, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council; 5 17 July 2007
- 99. Professor Pol Spanos, Department of Mechanical Engineering and Material Science, Rice University; supported by Rice and Aberdeen Universities, 30 June 4 July 2007
- 100. Emeritus Professor Bruce McCormick, Department of Computer Science, Texas A&M University, funded by the University of Aberdeen, 28 30 May 2007
- 101. Dr Marcelo A Savi, Department of Mechanical Engineering, Federal University of Rio de Janeiro, Brazil; funded by the University of Aberdeen, 9 19 April 2007
- 102. Professor Yoshisuke Ueda; Department of Complex Systems; Future University of Hokadate, Japan, funded by Future University Hokadate; 7 11 March 2007
- 103. Dr David Wright; Department of Complex Systems; Future University of Hokadate, Japan, funded by Future University Hokadate; 7 11 March 2007
- 104. Dr Hiroshi Namada, Department of Complex Systems; Future University of Hokadate, Japan, funded by Future University Hokadate; 7 11 March 2007
- 105. Dr Narakorn Srinil, Department of Civil Engineering, University of Rome 'La Sapienza'; funded by the Royal Society; 23 Feb 1 March 2007.
- 106. Professor Grzegorz Litak, Division of Applied Mechanics, Technical University of Lublin, Poland; funded by EC-Marie Currie Network; 11 17 February 2007
- 107. Professor Tomasz Kapitaniak; Division of Dynamics, Technical University of Lodz, Poland; funded by the University of Aberdeen; 4 11 December 2006
- 108. Dr Primoz Ceremnej, University of Ljubljana, Slovenia; funded by the Royal Society; 25 November 1 December 2006
- 109. Professor Soumitro Banerjee, Indian Institute of Technology in Kharagpur, sponsored by the Royal Society and the Indian Department of Science and Technology; 1 30 June 2006
- 110. Professor Carlos Mazzilli, Department of Civil Engineering, University of Sao Paulo, sponsored by the Royal Society, 12 18 February 2006
- 111. Mr Ilya Volkovets, St. Petersburg State Technical University, Russia; funded by EPSRC; 16 January 14 February 2006
- 112. Dr Silvio de Souza, University of Sao Paulo, funded by the Brazilian Science Foundation (CNPq); 1 November 2005 to 31 March 2006.
- 113. Dr Andrzej Stefanski; Division of Dynamics, Technical University of Lodz; funded by the Polish Science Foundation and the University of Aberdeen; 11 August 10 September 2005.
- 114. Professor Celso Grebogi; University of Sao Paulo, Brazil; funded by the University of Aberdeen; 24 28 April 2005.

- 115. Drs Jerzy Wojewoda and Andrzej Stefanski; TU Lodz, Poland; funded by the Polish Science Foundation; 8 24 March 2005.
- 116. Dr Miha Boltezar, University of Ljubljana, Slovenia; funded by the Royal Society; 29 July 3 September 2004
- 117. Dr Francesco Romeo, University of Rome 'La Sapienza'; funded by the British Council; 18 25 February 2004
- 118. Professor Anton Krivtsov, St. Petersburg State Technical University, Russia; funded by EPSRC; 14 November – 10 December 2003
- 119. Dr Nicola Jaksic, University of Ljubljana, Slovenia; funded by the Royal Society; 11 25 October 2003
- 120. Professor Alexander B. Freidin and Dr Leah Sharipova, Russian Academy of Sciences St. Petersburg Branch, Russia; funded by the Royal Society and the University of Aberdeen; 20 24 September 2003
- 121. Professor Christophe Pierre; Department of Mechanical Engineering, University of Michigan, US; funded by the Universities of Michigan and Aberdeen; 25 31 July 2003
- 122. Dr Ko-Choong Woo; Division of Engineering, University of Nottingham, Malaysia Campus; funded by the University of Nottingham; 25 July 2 August 2003
- 123. Dr Jerzy Wojewoda; Division of Dynamics, Technical University of Lodz, Poland; funded by the London Mathematical Society; 4 February 5 March 2002
- 124. Dr Andrei Metrikine, Department of Civil Engineering, Delft University of Technology, The Netherlands, funded by the London Mathematical Society; 12 16 January 2002
- 125. Dr Anton Krivtsov, Institute of Mechanics, Russian Academy of Sciences St. Petersburg Branch, Russia; funded by the Russian Science Foundation; 2 24 August 2001
- 126. Professor Ladislav Pust, Institute of Thermomechanics, Academy of Sciences of the Czech Republic; funded by the Royal Society; 10 24 August 2001
- 127. Mr Lubomir Kocanda, Institute of Thermomechanics, Academy of Sciences of the Czech Republic; funded by the European Commission; 6 August 5 September 2001
- 128. Academician Professor Nikita F Morozov; Department of Elasticity, St. Petersburg State University, Russia; funded by the Royal Society and University of Aberdeen; 21 24 May 2001
- 129. Professor Yuri N Mikhlin; Department of Applied Mathematics, Technical University of Kharkov, Ukraine; funded by Aberdeen University; 13 20 January 2001
- 130. Dr Elena F Grekova; Dynamics Laboratory, Russian Academy of Sciences St. Petersburg Branch, Russia; funded by the London Mathematical Society; 23 September 3 October 2000
- 131. Professor Tomasz Kapitaniak; Division of Dynamics, Technical University of Lodz, Poland; funded by the Royal Society and the Polish Science Foundation (KBN); 13 26 March 2000
- 132. Dr Jerzy Wojewoda; Division of Dynamics, Technical University of Lodz, Poland; funded by the Polish Science Foundation (KBN) and Aberdeen University; 23 June 15 August 2000
- 133. Prof Jerzy Lipski; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 10 17 December 1999
- 134. Dr Kazimierz Zaleski Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 10 17 December 1999
- 135. Dr Jerzy Warminski; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 10 17 December 1999
- 136. Dr Tamas Kalmar-Nagy, Department of Mechanical Engineering, Cornell University, US; funded by Cornell University; 5 12 June 1999
- 137. Professor Pavel A Zhilin; Dynamics Laboratory, Russian Academy of Sciences St. Petersburg Branch, Russia; funded by the London Mathematical Society; 4 11 June 1999
- 138. Professor Giuseppe Rega; Department of Dynamics and Geotechnics, University of Rome, Italy; funded by University of Rome and University of Aberdeen; 1 12 June 1999
- 139. Dr Bram de Kraker; Department of Applied Dynamics, Eindhoven University of Technology, The Netherlands; funded by Eindhoven University of Technology and University of Aberdeen; 10 13 November 1998

- 140. Dr Frantisek Peterka; Institute of Thermomechanics, Academy of Sciences of the Czech Republic; funded by Academy of Sciences of the Czech Republic and Aberdeen University; 10 12 October 1998
- 141. Prof Jerzy Lipski; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 11 25 November 1998
- 142. Dr Grzegorz Litak; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 11 25 November 1998
- 143. Dr Jerzy Warminski; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 11 25 November 1998
- 144. Dr Jerzy Warminski; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 2 9 November 1997
- 145. Dr Grzegorz Litak; Department of Applied Mechanics, Technical University of Lublin, Poland; funded by the British Council and the Polish Science Foundation (KBN); 2 9 November 1997
- 146. Professor Alya Rodkina; Department of Mathematics, Voronezh State University, Russia; funded by the Royal Society and Aberdeen University; 28 30 October 1996
- 147. Dr Keyu Li; Department of Mechanical Engineering; Oakland University, MI, US; funded by Oakland University; 10 15 October 1996
- 148. Professor Alexander H-D. Cheng, Department of Civil Engineering, University of Delaware; funded by Office of Naval Research, 7-12 August 1995
- 149. Dr Jeff Simmen, Department of Ocean Acoustics, Office of Naval Research; funded by Office of Naval Research, 7-12 August 1995
- 150. Professor Wieslaw M Ostachowicz; Institute of Fluid Flow Machinery, The Polish Academy of Sciences; funded by the Royal Society and the Polish Science Foundation (KBN); 5 12 May 1995

#### **Professional Activities**

- REF 2021 Panel member for UoA Engineering, 2020-2021
- Member of the Fellowship Committee: The Royal Society of Edinburgh, 2009-2014, 2019-24
- REF 2014 Panel member for UoA General Engineering, 2011-2014
- Editor-In-Chief of International Journal of Mechanical Sciences; 2013-;
- Associate Editor of International Journal of Mechanical Sciences; 2011-12
- <u>Editorial Boards:</u> Acta Mechanica Sinica; Advances in Engineering Monographs Series: Swets & Zeitlinger; Advances in Theoretical and Applied Mechanics; Automation and Mechanical Engineering: Russian International Journal; International Journal of Dynamics and Control; International Journal of Mechanical Engineering Education; International Journal of Non-linear Mechanics; Journal of Applied and Computational Mechanics; Journal of Dynamical and Control Systems; Mechanics and Mechanical Engineering: Polish International Journal; NOLTA, IEICE; Nonlinear Dynamics; Proceedings of the Institution of Mechanical Engineering Part C: Journal of Mechanical Engineering Science; Theoretical and Applied Mechanics Letters
- <u>Member of the Sectional Committee</u> of the Royal Society of Edinburgh, The Travel and Scholarship Committee of the Royal Society of Edinburgh, 2017-2020
- Member of the Council, Institute of Mathematics and its Applications; 2003-06
- Member of EPSRC Peer Review College; since 2000
- <u>Guest Editor:</u> Chaos, Solitons and Fractals (1 volume), International Journal of Bifurcation and Chaos (1 volume), International Journal of Mechanical Sciences (5 volumes); International Journal of Non-linear Mechanics (4 volumes), IMA Journal of Applied Mathematics (1 volume), Meccanica

- (3 volumes), Proceedings of the Institutions of Mechanical Engineers Part C (1 volume), Philosophical Transactions of the Royal Society Part A (3 volumes)
- Papers, Books and Grant Proposals' Reviewer (selected list): The Franklin Institute; The Aeronautical Journal; ASME: Journal of Turbomachinery; ASME: Journal of Applied Mechanics; ASME: Journal of Vibration and Acoustics; ASME: Biennial conferences on Vibration and Noise; Chaos: An International Journal of Nonlinear Science; Chaos, Solitons and Fractals; Composites: Part B; Computational Mechanics; Computer Methods in Applied Mechanics and Engineering; Conference Programmes in the Isaac Newton Institute for Mathematical Sciences; DAAD; 2005 DAMAS conference; 2005 DINAME Conference; Dynamical Systems: An International Journal; Engineering and Physical Sciences Research Council; EPSRC; European Journal of Control; DYNASTY Foundation; Hong Kong Research Grant Committee; IEEE Transactions on Automatic Control; Institution of Mechanical Engineers – James Watt International Award Scheme; International Conferences on Vibrational Practice in Engineering; International Journal of Mechanical Sciences; International Journal and Mathematics and Mathematical Sciences; International Journal of Nonlinear Mechanics; International Journal of Robust and Nonlinear Control; International Journal of Rotating Machinery; Inverse Problems in Science & Engineering; IUTAM Symposia; John Wiley & Sons; Journal of Applied Mathematics; Journal of Engineering Mathematics; Journal of Sound and Vibration; Journal of Vibration and Control; Joule Centre; Machine Vibration; Mechanical Systems and Signal Processing; Mathematics Today; Meccanica: Italian International Journal of Mechanics; Mechanics: Research Communications; National Science Centre, Poland; Natural Environment Research Council; Nonlinear Dynamics; OTKA (Hungarian Scientific Research Fund); Philosophical Transactions of the Royal Society - Part A; Physical Review E; Physics Letters B; Proceedings of Institution of Mechanical Engineers Parts B, C and D; Proceedings of the Royal Society: Part A; Research Grants Council of Hong Kong; Springer - Books Proposals; Smart Materials and Structures; Structural Engineering and Mechanics; Systems Analysis-Modelling-Simulation; Slovenian Ministry of Education and Science; Swedish Knowledge Foundation; The Royal Society; Transactions of Institute of Measurement & Control; World Scientific – Books Proposals; ZAMM.
- <u>Advisory Boards:</u> Center for Structures in Extreme Environments, Rutgers University (Member since 1999); International Conferences on Recent Advances in Nonlinear Mechanics (Chairman since 2005); Centre for Nonlinear Dynamics Research (Chairman since 2012), Harbin Institute of Technology; International Conferences of Engineering Vibration (Chairman since 2015)
- Member of <u>Promotion and Appointment Committees</u>: University of Aberdeen, University of Botswana, University of Jordan, Federal University of Rio de Janeiro, University of Karachi, University of Ljubljana, McGill University, Pontifical Catholic University of Rio de Janeiro, Rutgers University, University of Qatar, Taibath University, Technion - Israel Institute of Technology; University of Rhode Island, Worcester Polytechnic Institute.
- Internal and External <u>PhD Examiner</u> in the UK and member of PhD committees in various universities including Curtin University, British University of Dubai, Indian Institute of Science Bangalore, Indian Institute of Technology Kanpur, the Indian Institute of Technology Kharagpur, the Indian Institute of Technology Madras, University of Lipubilana, Lodz University of Technology, University of Liege, National Institute of Technology Calicut, National Institute of Technology Rourkela, Swedish Royal Institute of Technology (KTH), Technical University of Denmark and University of Texas A&M.
- Conference Sessions Chairman (selected list): International Conference on Engineering Vibration, Sofia, Bulgaria, 4-7 September 2017; International Conference on Engineering Vibration, Ljubljana, Slovenia, 7-10 September 2015; 9<sup>th</sup> International Conference on Dynamics, Vibration and Control, Shanghai, China, 22 25 August 2014; 8<sup>th</sup> Nonlinear Dynamics Conference ENOC, 6 11 July 2014, Vienna, Austria; International Conference on Recent Advances in Nonlinear Mechanics, 5-9 January 2014, Harbin, China; International Conference on Nonlinear Dynamics in Engineering:

Modelling, Analysis and Applications, 21-23 August 2013, Aberdeen, UK; of International Symposium on Mechanics of Solids and Structures, 17-19 September 2012, Aberdeen, UK; IUTAM Symposium on '50 Years of Chaos', December 2011, Kyoto, Japan; International Symposium on Dynamics and Control, Hanoi, Vietnam, 19 – 21 September 2011; 10<sup>th</sup> International Conference on Vibration Problems, Prague, Czech Republic, 5 – 8 September 2011; 3<sup>rd</sup> International Conference on Dynamics, Vibration and Control ICDVC-2010, 12 - 14 May 2010, Hangzou, China; Euromech Colloquium 503, 27 September – 2 October 2009, Frascati (Rome), Italy; International Conference on 'Recent Advances in Nonlinear Mechanics', 24 – 27 August 2009, Kuala Lumpur, Malaysia; 9th International Conference on Vibration Problems, Kharagpur, India, 19 – 22 January 2009; 22<sup>nd</sup> ICTAM, 24 – 30 August 2008, Adelaida, Australia; Symposium on 'Mechanics of Slender Structures', 23 – 25 July 2008, University of Maryland, US; 8<sup>th</sup> World Congress of Computational Mechanics, 30 June – 4 July 2008, Venice, Italy; EuroMech Colloquium 498 on 'Nonlinear Dynamics and Chaos of Composite and Smart Structures (NDCS)', 21 - 24 May 2008, Kazimierz Dolny, Poland; 2<sup>nd</sup> International Nonlinear Dynamics Conference, Kharkov, Ukraine, 24 – 28 September 2007; IUTAM Symposium 'Fluid-Structure Interactions in Ocean Engineering', 23 - 27 July 2007, Hamburg, Germany; EuroMech Colloquium 483 'Geometrically Nonlinear Vibrations of Structures', 5 - 7 September 2007, Porto, Portugal; XXXIV Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 20 - 28 June 2007, St. Petersburg, Russia; EuroMech Colloquium 484 'Wave Mechanics and Stability of Long Flexible Structures subject to Moving Loads and Flows', 19-22 September 2006, Delft, The Netherlands; 2<sup>nd</sup> International Conference on Vibration, Dynamics and Control, 23 - 26 August 2006 Beijing, China; XXXIV Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 26 June - 2 July 2006, St. Petersburg, Russia; The IMA International Conference on 'Recent Advances in Nonlinear Mechanics', 30 August – 1 September 2005, Aberdeen; 13th Annual Conference of Computational Mechanics in Engineering, Sheffield, 21 - 22 March 2005; WCCM VI, 5 - 10 September 2004, Beijing, China; 21st Congress of Theoretical and Applied Mechanics, 15 – 21 August 2004, Warsaw; Minisymposium session: Advanced Problems in Mechanics, 24 June – 1 July 2004, St. Petersburg, Russia; 5<sup>th</sup> International Conference on *Modern Practice in Vibration and Stress Analysis*, 9 – 11 September 2003, Glasgow, UK; The IMA International Conference on Bifurcations: The Use and Control of Chaos, 28 - 30 July 2003, Southampton, UK; IUTAM Symposium on Chaotic Dynamics of Systems and Processes in Mechanics, Rome, Italy, 9 – 13 June 2003; 4<sup>th</sup> International Symposium 'Investigations of Nonlinear Effects in Production Systems', 8 – 9 April 2003, Chemnitz, Germany; Minisymposium session: Advanced Problems in Mechanics, July 2002, St. Petersburg, Russia; Plenary Session: EuroConference on Computational Mechanics and Engineering Practice 'COMEP', 19-21 September 2001, Szczyrk, Poland; Nonlinear Dynamics of Mechanical Systems Session: Euromech 425: Nonlinear Dynamics, Control and Condition Monitoring, 20 - 24 August 2001, Aberdeen, UK; Nonlinear Dynamics and Chaos of Engineering Structures: XXIX Summer School of Russian Academy of Sciences, 20-29 June 2001, St. Petersburg, Russia; Nonlinear Dynamics of Engineering Structures: XXVIII Summer School of Russian Academy of Sciences, 1-10 June 2000, St. Petersburg, Russia; Nonlinear Dynamics of Engineering Systems: ASME Vibration and Noise Conference, 12-15 Sept 1999, Las Vegas, Nevada, US; Numerical Methods Session: Euromech Conference Nonlinear Oscillations in Mechanical Systems, 8 - 12 August 1999, Copenhagen, Denmark; Applications of Nonlinear Dynamics to Engineering Systems Session: International Congress on Dynamics and Control of Systems, 5-7 August 1999, Chateau Laurier, Ottawa, Canada; Applied Mechanics: SIAM Applications of Nonlinear Dynamics; 18-22 May 1997, Snowbird, Utah, US; Random Vibration Session: 2<sup>nd</sup>European Nonlinear Oscillations Conference, 9-14 September 1996, Prague, Czech Republic

• <u>Scientific Committees Member</u> (selected list): *International Conference on Engineering Vibration*, Aberdeen, UK, 18 – 21 August 2020; International Conference on *Recent Advances in Nonlinear Mechanics RANM 2019*, 7 – 10 May 2019, Lodz, Poland; *14th International Conference on Vibration* 

Engineering and Technology Machinery, 10–13 September 2018, Lisbon, Portugal; International Conference on Engineering Vibration ICoEV 2017, Sofia, Bulgaria, 4-7 September 2017; International Conference on Engineering Vibration, Ljubljana, Slovenia, 7-10 September 2015; XXXXII Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 25 June - 2 July 2015, St. Petersburg, Russia; 4<sup>th</sup> International Conference on *Dynamics, Vibration, and* Control, Shanghai, China, 22-25 August 2014; International Conference on Recent Advances in Nonlinear Mechanics, 5-9 January 2014, Harbin, China; XXXXI Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 1 - 7 July 2013, St. Petersburg, Russia; 11th International Conference on Vibration Problems, Lisbon, Portugal, 9 - 12 September 2013; International Conference on Nonlinear Dynamics in Engineering: Modelling, Analysis and Applications, 21-23 August 2013, Aberdeen, UK; XXXX Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 2 - 8 July 2012, St. Petersburg, Russia; IUTAM Symposium on '50 Years of Chaos', December 2011, Kyoto, Japan; International Symposium on Dynamics and Control, Hano, Vietnam, 19 – 21 September 2011; 10<sup>th</sup> International Conference on Vibration Problems, Prague, Czech Republic, 5 - 8 September 2011; XXXIX Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 1 – 6 July 2011, St. Petersburg, Russia; 3<sup>rd</sup> International Conference 'Nonlinear Dynamics – 2010', 21 – 24 September 2010, Kharkov, Ukraine; IUTAM Symposium on 'Nonlinear Dynamics for Advanced Technologies and Engineering Design', 27 - 30 July 2010, Aberdeen, UK; Symposium on 'Mechanics of Slender Structures', 21 – 23 July 2010, San Sebastian, Spain; 3<sup>rd</sup> International Conference on 'Dynamics, Vibration and Control', 12 – 14 May 2010, Hangzhou, China; 7th International Conference on 'Modern Practice in Stress and Vibration Analysis', 8 - 10 September 2009, Cambridge, UK; International Conference on 'Recent Advances in Nonlinear Mechanics', 24 – 27 August 2009, Kuala Lumpur, Malaysia; XXXVII Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 2 – 8 July 2009, St. Petersburg, Russia; 9<sup>th</sup> International Conference on Vibration Problems, 19 – 22 January 2009, Kharagpur, India; International Symposium RA'08 Rare Attractors and Rare Phenomena in Nonlinear Dynamics 8 – 12 September 2008, Riga – Jurmala, Latvia; Control 2008, 1 – 4 September 2008, Manchester, UK; Symposium on 'Mechanics of Slender Structures', 23 - 25 July 2008, University of Maryland, US; XXXVI Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 6 - 10 July 2008, St. Petersburg, Russia; Chaotic Modeling and Simulation International Conference 'CHAOS2008', 3 - 6 June 2008, Chania, Crete, Greece; EuroMech Colloquium 498 on 'Nonlinear Dynamics and Chaos of Composite and Smart Structures (NDCS)', 21 – 24 May 2008, Kazimierz Dolny, Poland; 2<sup>nd</sup> International Nonlinear Dynamics Conference, Kharkov, Ukraine, 24 - 28 September 2007; EuroMech Colloquium 483 'Geometrically Nonlinear Vibrations of Structures', 5 - 7 September 2007, Porto, Portugal; XXXV Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 20 - 28 June 2007, St. Petersburg, Russia; EuroMech Colloquium 484 'Wave Mechanics and Stability of Long Flexible Structures subject to Moving Loads and Flows', 19-22 September 2006, Delft, The Netherlands; 8<sup>th</sup> International Conference on Computational Structures Technology, 12 – 15 September 2006, Las Palmas de Gran Canaria, Spain; Conference on Modern Practice in Stress and Vibration Analysis, 5 - 7 September 2006, Bath, UK; International Conference 'Control 2006', 30 August – 1 September 2006, Glasgow; 2<sup>nd</sup> International Conference on Vibration, Dynamics and Control, 23 – 26 August 2006 Beijing, China; XXXIV Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 26 June - 2 July 2006, St. Petersburg, Russia; The IMA International Conference on 'Recent Advances in Nonlinear Mechanics', 30 August – 1 September 2005, Aberdeen; XXXIII Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 28 June - 5 July 2005, St. Petersburg, Russia; Euromech Colloquium 468 on 'Mulitiscales Modelling in Continuum and Discrete Mechanics', 29 June – 1 July 2005, St. Petersburg, Russia; Nonlinear Dynamics Conference, 14 - 16 September 2004, Kharkov, Ukraine; 7th International Conference on Computational Structures Technology, 7 – 9 September 2004, Lisbon, Portugal; XXXII Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 24 June – 1 July 2004, St. Petersburg, Russia; 5<sup>th</sup> International Conference on Vibrational Practice in Engineering, 9 – 11 September 2003, Glasgow, UK; International Conference on Bifurcations, the Use and Control of Chaos, July 2003, Southampton, UK; XXXI Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', June/July 2003, St. Petersburg, Russia; Summer International School on 'Nonlinear Dynamics, Chaos, Catastrophes, and Control', Riga-Jurmala, Latvia, 1-5 July 2002; XXX Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', July 2002, St. Petersburg, Russia; EuroConference on Computational Mechanics and Engineering Practice 'COMEP', 19-21 September 2001, Szczyrk, Poland; EuroMech Colloquium 425 'Nonlinear Dynamics, Control and Condition Monitoring of Engineering Systems & Structures', 20-24 August 2001, Aberdeen, UK; XXIX Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 20-30 June 2001, St. Petersburg, Russia; XXVIII Summer School of Russian Academy of Sciences 'Actual Problems in Mechanics', 1-10 June 2000, St. Petersburg, Russia; International Congress on Dynamics and Control of Nonlinear Systems, 5 - 7 August 1999, Chateu Laurier, Ottawa, Ontario, Canada.

Conference/Minisymposia Chairman/Co-chairman and Organiser (selected list): International Conference on Engineering Vibration, Aberdeen, UK, 18 - 21 August 2020; International Conference on Recent Advances in Nonlinear Mechanics, 7 - 10 May 2019, Lodz, Poland; International Conference on Engineering Vibration, Sofia, Bulgaria, 4-7 September 2017; International Conference on Engineering Vibration, Ljubljana, Slovenia, 7-10 September 2015; 4th International Conference on Dynamics, Vibration, and Control, Shanghai, 22-25 August 2014; 8th Nonlinear Dynamics Conference - ENOC, 6 - 11 July 2014, Vienna, Austria; International Conference on Recent Advances in Nonlinear Mechanics, 5-9 January 2014, Harbin, China; 11th International Conference on Vibration Problems, 9 - 12 September 2013, Lisbon, Portugal; International Conference on Nonlinear Dynamics in Engineering: Modelling, Analysis and Applications, 21–23 August 2013, Aberdeen, UK; International Symposium on Mechanics of Solids and Structures, 17 – 19 September 2012; Aberdeen, UK; 23rd ICTAM, 19 – 24 August 2012, Beijing, China; 7<sup>th</sup> Nonlinear Dynamics Conference - ENOC, 24 – 28 July 2011, Rome, Italy; 3<sup>rd</sup> International Conference 'Nonlinear Dynamics - 2010', 21 - 24 September 2010, Kharkov, Ukraine; IUTAM Symposium on 'Nonlinear Dynamics for Advanced Technologies and Engineering Design', 27 – 30 July 2010, Aberdeen, UK; 2<sup>nd</sup> International Conference on 'Recent Advances in Nonlinear Mechanics', 24 – 27 August 2009, Kuala Lumpur, Malaysia; 22<sup>nd</sup> ICTAM, 24 – 30 August 2008, Adelaida, Australia; 6<sup>th</sup> EUROMECH Nonlinear Dynamics Conference, 30 June — 4 July 2008, Saint Petersburg, Russia; 8th World Congress of Computational Mechanics, 30 June – 4 July 2008, Venice, Italy; 2<sup>nd</sup> International Conference on Vibration, Dynamics and Control, 23 – 26 August 2006 Beijing, China; WCCM VII, 16 – 22 July 2006, Los Angeles, US; The IMA International Conference on Recent Advances in Nonlinear Mechanics, 30 August – 1 September 2005, Aberdeen; Euromech Colloquium on 'Multi-scales Modelling in Continuum and Discrete Mechanics', 29 June - 1 July 2005, St. Petersburg, Russia; Advanced CIMS Course on 'Nonlinear Dynamics and Chaos for High Volume and Ultra Precision Metal Cutting', 20 - 24 September 2004, Udine, Italy; WCCM VI, 5 -10 September 2004, Beijing, China; XXXII Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 24 June – 1 July 2004, St. Petersburg, Russia; XXXI Summer School of Russian Academy of Sciences 'Advanced Problems in Mechanics', 23 June – 2 July 2003, St. Petersburg, Russia; International Conference on Bifurcations: the Use and Control of Chaos, July 2003, Southampton, UK; SIAM Applications of Dynamical Systems; 20 - 24 May 2003, Snowbird, Utah, US; EuroMech Colloquium 425 'Nonlinear Dynamics, Control and Condition Monitoring of Engineering Systems & Structures', Aberdeen, 20-24 August 2001; International Advanced Research Workshop (under the Office of Naval Research and University of Aberdeen patronage) entitled "Chaos in Mechanical Systems with Discontinuities: Engineering Applications", University of Aberdeen, 8 - 11 August 1995; Mini Symposium on Chaos, University of Delaware, Newark, Delaware, US, 27 September 1995

## List of Publications and Invited Talks (H-indexes; 45-WoS, 47-Scopus, 54-Google Scholar)

#### **Refereed Journal Papers**

- 1. Dehkordi, M. K., Osguei, A.T. Khamoushi, I., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2022 Internal mechanics of anti stick–slip tool. *International Journal of Mechanical Sciences* **221**, 107188.
- 2. Pei, L., Chong, A., Pavlovskaia, E, <u>Wiercigroch, M.</u> 2022 Computation of periodic orbits for piecewise linear oscillator by Harmonic Balance Methods. *Communications in Nonlinear Science and Numerical Simulation* **108**, 106220.
- 3. Wang, Z., Zhou, W., Shu, T., Xue, Q., Zhang, R., <u>Wiercigroch, M.</u> 2022 Modelling of low-frequency acoustic wave propagation in dilute gas-bubbly liquids. *International Journal of Mechanical Sciences* **216**, 106979.
- 4. Hao, Z., Wang, D., <u>Wiercigroch, M.</u> 2022 Nonlinear dynamics of new magneto-mechanical oscillator. *Communications in Nonlinear Science and Numerical Simulation* **105**, 106092.
- 5. Wang, D., Hao, Z., Chen, Y., <u>Wiercigroch, M</u>. 2022 Response analysis of a rotating tapered beam. *Lecture Notes in Electrical Engineering* **799**, 682 694.
- 6. Dai, W., Yang, J., <u>Wiercigroch, M.</u> 2022 Vibration energy flow transmission in systems with Coulomb friction. *International Journal of Mechanical Sciences* **214**, 106932.
- 7. Wang, D., Hao, Z., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2021 Bifurcation analysis of vortex-induced vibration of low-dimensional models of marine risers. *Nonlinear Dynamics* **106**, 147-167.
- 8. Riabokon, E., Poplygin, V., Turbakov, M., Kozhevnikov, E., Kobiakov, D., Guzev, M., <u>Wiercigroch, M.</u> 2021 Nonlinear Young's modulus of New Red Sandstone: Experimental studies. *Acta Mechanica Solida Sinica* **34**, 989-999.
- 9. MacLean, J.D.J., Vaziri, V., Aphale, S.S., <u>Wiercigroch, M.</u> 2021 Feedback control method to suppress stick-slip in drill-strings featuring delay and actuation constraints. *European Physical Journal: Special Topics* **230**, 3627-3642.
- 10. Ji, Y., Xing, Y., <u>Wiercigroch, M.</u> 2021 An unconditionally stable time integration method with controllable dissipation for second-order nonlinear dynamics. *Nonlinear Dynamics* **105**, 3341-3358.
- 11. Terrero González, A., Dunning, P., Howard, I., McKee, K., <u>Wiercigroch, M.</u> 2021 Is wave energy untapped potential? *International Journal of Mechanical Sciences* **205**, 106544.
- 12. Li, W.C., Vaziri, V., Aphale, S.S., Dong, S., <u>Wiercigroch, M.</u> 2021 Energy saving by reducing motor rating of sucker-rod pump systems. *Energy* **228**, 120618.
- 13. Yan, Y., Liu, G., <u>Wiercigroch, M.</u>, Xu, J. 2021 Safety estimation for a new model of regenerative and frictional cutting dynamics. *International Journal of Mechanical Sciences* **201**, 106468.
- 14. Yan, Y., Xu, J., <u>Wiercigroch, M.</u>, Guo, Q. 2021 Statistical basin of attraction in time-delayed cutting dynamics: Modelling and computation. *Physica D* **416**, 132779.
- 15. Ma, L., Tang, Z., Bian, Z., Zhu, J., <u>Wiercigroch, M.</u> 2021 Analytical solution for circular inhomogeneous inclusion problems with non-uniform axisymmetric eigenstrain distribution. *International Journal of Mechanical Sciences* **194**, 106213.
- 16. Liao, M., <u>Wiercigroch, M.</u>, Sayah, M., Ing, J., 2021 Experimental verification of the percussive drilling model. *Mechanical Systems and Signal Processing* **146**, 107067.
- 17. Vaziri, V., Oladunjoye, I., Kapitaniak, M., Aphale, S.S., Wiercigroch, M. 2021 Parametric analysis of a sliding-mode controller to suppress drill-string stick-slip vibration. *Meccanica* **55**(12), 2475 2492.
- 18. Costa, D., Vaziri, V., Kapitaniak, M., Kovacs, S., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2020 Chaos in impact oscillators not in vain: Dynamics of new mass excited oscillator. *Nonlinear Dynamics* **102**, 835-861.
- 19. Tahir, M., Halafawi, M., <u>Wiercigroch, M.</u>, Avram, L. 2020 Optimum well trajectory design and optimization based on numerical optimization method PSO algorithm and wellbore stability. *Petroleum and Coal* **62**(1), 114 128.
- 20. Kurushina, V., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2020 VIV of flexible structures in 2D uniform flow. *International Journal of Engineering Science* **150**, 103211.
- 21. Xie, D., Huang, Z., Ma, Y., Vaziri, V., Kapitaniak, M., <u>Wiercigroch, M.</u> 2020 Nonlinear dynamics of lump mass model of drill-string in horizontal well. *International Journal of Mechanical Sciences* **174**, 105450.
- 22. Li, S., Vaziri, V., Kapitaniak, M., Millett, J.M., <u>Wiercigroch, M.</u> 2020 Application of Resonance Enhanced Drilling to coring. *Journal of Petroleum Science and Engineering* **188**, 106866.
- 23. Li, W., Vaziri, V., Aphale, S., Dong, S., <u>Wiercigroch, M.</u> 2020 Dynamics and frequency and voltage control of downhole oil pumping system. *Mechanical Systems and Signal Processing* **139**, 106562.
- 24. Kapitaniak, M., Vaziri, V., <u>Wiercigroch, M.</u> 2020 Bifurcation scenarios in helical buckling of slender rods using new FE. *International Journal of Engineering Science* **147**, 103197.

- 25. <u>Wiercigroch, M.</u>, Kovacs, S. Zhong, S., Costa, D., Vaziri, V., Kapitaniak, M., Pavlovskaia, E. 2020 Versatile mass excited impact oscillator. *Nonlinear Dynamics* **99**(1), 323-339.
- 26. Yan, Y., Xu. J, <u>Wiercigroch, M.</u> 2019 Estimation and improvement of cutting safety. *Nonlinear Dynamics* **98**(4), 2975-2988.
- 27. Yan, Y., <u>Wiercigroch, M.</u> 2019 Dynamics of rotary drilling with non-uniformly distributed blades. *International Journal of Mechanical Sciences* **160**, 270-281.
- 28. Yan, Y., Xu. J, <u>Wiercigroch, M.</u> 2019 Modelling of regenerative and frictional cutting dynamics. *International Journal of Mechanical Sciences* **156**, 86-93.
- 29. Yan, Y., Xu. J, <u>Wiercigroch, M.</u> 2018 Stability and dynamics of parallel plunge grinding. *International Journal of Advanced Manufacturing Technology* **99**(1-4), 881-895.
- 30. Gasiorek, D., Baranowski, P., Malachowski, J., Mazurkiewicz, L., <u>Wiercigroch, M.</u> 2018 Modelling of guillotine cutting of multi-layered *aluminium* sheets. *Journal of Manufacturing Processes* **34**, 374-388.
- 31. Ma, L., Yari, N., <u>Wiercigroch, M.</u> 2018 Shear stress triggering brittle shear fracturing of rock-like materials. *International Journal of Mechanical Sciences* **146-147**, 295-302.
- 32. Vaziri, V., Kapitaniak, M., <u>Wiercigroch, M.</u> 2018 Suppression of drill-string stick–slip vibration by sliding mode control: Numerical and experimental studies. *European Journal of Applied Mathematics* **29**(5), 805-825.
- 33. Liu, Y., Chávez, J.P., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2018 Analysis and control of the dynamical response of a higher order drifting oscillator. *Proceedings of the Royal Society A* **474**, 20170500.
- 34. Liao, M., Liu, Y., Páez Chávez, J., Chong, A.S.E., <u>Wiercigroch, M.</u> 2018 Dynamics of vibro-impact drilling with linear and nonlinear rock models. *International Journal of Mechanical Sciences* **146-147**, 200-210.
- 35. Kurushina, V., Pavlovskaia, E., Postnikov, A., <u>Wiercigroch, M.</u> 2018 Calibration and comparison of VIV wake oscillator models for low mass ratio structures. *International Journal of Mechanical Sciences* **142-143**, 547-560.
- 36. Pei, L., Wang, S. and <u>Wiercigroch, M.</u> 2018 Analysis of Hopf bifurcations in differential equations with state-dependent delays via multiple scales method. *ZAMM* **98**, 789-801.
- 37. Brzeski, P., Chong, A.S.E., <u>Wiercigroch, M.</u> and Perlikowski, P. 2018 Impact adding bifurcation in an autonomous hybrid dynamical model of church bell. *Mechanical Systems and Signal Processing* **104**, 716-724
- 38. Kapitaniak, M., Vaziri, V., Páez Chávez, J. and <u>Wiercigroch, M.</u> 2018 Experimental studies of forward and backward whirls of drill-string. *Mechanical Systems and Signal Processing* **100**, 454-465.
- 39. Chong, A.S.E., Brzeski, P., <u>Wiercigroch, M.</u> and Perlikowski, P. 2017 Path-following bifurcation analysis of church bell dynamics. *Journal of Computational and Nonlinear Dynamics* **12** (6), 061017.
- 40. Kapitaniak, M., Vaziri, V., Paéz Chávez, J. and <u>Wiercigroch, M.</u> 2017 Numerical study of forward and backward whirling of drill-string. *Journal of Computational and Nonlinear Dynamics* **12** (6), 061009.
- 41. Yan, Y., Xu, J. and Wiercigroch, M. 2017 Basins of attraction of the bistable region of time-delayed cutting dynamics. *Physical Review E* **96** (3), 032205.
- 42. Chong, A.S.E., Yue, Y., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2017 Global dynamics of a harmonically excited oscillator with a play: Numerical studies. *International Journal of Non-Linear Mechanics* **94**, 98-108.
- 43. De Paula, A.S., Savi, M.A., Vaziri, V., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2017 Experimental bifurcation control of a parametric pendulum. *Journal of Vibration and Control* **23**(14), 2256-226.
- 44. Jiang, H., Chong, A.S.E., Ueda, Y. and <u>Wiercigroch, M.</u> 2017 Grazing-induced bifurcations in impact oscillators with elastic and rigid constraints. *International Journal of Mechanical Sciences* **127**, 204-214.
- 45. Postnikov, A., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2017 *International Journal of Mechanical Sciences* **127**, 176-190. 2DOF CFD calibrated wake oscillator model to investigate vortex-induced vibrations.
- 46. Yan, Y., Xu, J. and <u>Wiercigroch, M.</u> 2017 Regenerative chatter in a plunge grinding process with workpiece imbalance. *International Journal of Advanced Manufacturing Technology* **89**(9-12), 2845-2862.
- 47. <u>Wiercigroch, M.</u>, Nandakumar, K., Pei, L., Kapitaniak, M., Vaziri, V. 2017 State dependent delayed drill-string vibration: Theory, experiments and new model. *Procedia IUTAM* **22**, 39-50.
- 48. Liu, Y., Jiang, H., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2017 Experimental investigation of the vibro-impact capsule system. *Procedia IUTAM* **22**, 237-243.
- 49. Yan, Y., Xu, J. and <u>Wiercigroch, M.</u> 2017 Influence of workpiece imbalance on regenerative and frictional grinding chatters. *Procedia IUTAM* **22**, 146-15.
- 50. Poplygin, V.V., Rusinov, D.I., <u>Wiercigroch, M.</u> and Pavlovskaia, E.E. 2017 Evaluation of the application effectiveness of abrasive jet perforation for enhancing well production rate. *Neftyanoe Khozyaystvo Oil Industry* **5**, 56-58.

- 51. Hao, Z., Cao, Q. and <u>Wiercigroch, M.</u> 2017 *Nonlinear Dynamics* **87**, 987–1014. Nonlinear dynamics of the quasi-zero-stiffness SD oscillator based upon the local and global bifurcation analyses.
- 52. Liao, M., Ing, J., Sayah, M. and <u>Wiercigroch, M.</u> 2017 *Mechanical Systems and Signal Processing*. Dynamic method of stiffness identification in impacting systems for percussive drilling applications.
- 53. De Paula, A.S. Savi, M.A., Vaziri, V., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2017 *Journal of Vibration and Control* **23**(14), 2256–226. Experimental bifurcation control of a parametric pendulum.
- 54. Wang, D., Chen, Y.S., <u>Wiercigroch, M.</u> and Cao, Q. 2016 *Applied Mathematics and Mechanics* **37**, 1251-1274. Bifurcation and dynamic response analysis of a rotating blade excited by upstream vortices.
- 55. Yan, Y., Xu, J. and <u>Wiercigroch, M.</u> 2016 *Nonlinear Dynamics* **86**, 283-307. Regenerative and frictional chatter in plunge grinding.
- 56. Wang, J., Liu, C., <u>Wiercigroch, M.</u>, Wang, C. and Shui, Y. 2016 *Nonlinear Dynamics* **86**, 1477-1492. Stability of periodic modes and bifurcation behaviors in a bouncing-dimer system
- 57. Liu, Y., Islam, S., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2016 *Strojniski Vestnik/Journal of Mechanical Engineering* **62**(7-8), 430-439. Optimization of the vibro-impact capsule system.
- 58. Yan, Y., Xu, J. and <u>Wiercigroch, M.</u> 2016 *Meccanica* **51**, 3185-3202. Regenerative and frictional chatter in self-interrupted plunge grinding.
- 59. Hao, Z., Cao, Q. and <u>Wiercigroch, M.</u> 2016 *Nonlinear Dynamics* **86**, 2129–2144. Two-sided damping constraint control strategy for high-performance vibration isolation and end-stop impact protection.
- 60. Wang, D., Chen, Y., <u>Wiercigroch, M.</u> and Cao, Q. 2016 *Meccanica* **51**, 2607–2628. A three-degree-of-freedom model for vortex-induced vibrations of turbine blades.
- 61. Jiang. H.B. and <u>Wiercigroch, M.</u> 2016 *IMA Journal of Applied Mathematics* **81**, 662-678. Geometrical insight into non-smooth bifurcations of a soft impact oscillator.
- 62. Liao, M., Ing, J., Páez Chávez, J. and <u>Wiercigroch, M.</u> 2016 *Communications in Nonlinear Science and Numerical Simulation* **41**, 19-31. Bifurcation techniques for stiffness identification of an impact oscillator.
- 63. Páez Chávez, J., Liu, L., Pavlovskaia, P. and <u>Wiercigroch, M.</u> 2016 *Communications in Nonlinear Science and Numerical Simulation* **37**, 103-114. Path-following analysis of the dynamical response of a piecewise-linear capsule system.
- 64. Pavlovskaia, E., Keber, M., Postnikov, A., Reddington, K. and <u>Wiercigroch, M</u>. 2016 *International Journal of Non-linear Mechanics* **80**, 40-51. Multi-modes approach to modelling of vortex-induced vibration.
- 65. Saha, A., Stefanski, Wahi, P. and <u>Wiercigroch, M</u>. 2016 *International Journal of Non-linear Mechanics* **80**, 122-131. Modified LuGre friction model for an accurate prediction of friction force in the pure sliding regime.
- 66. Kapitaniak, M., Hamaneh, V.V. and <u>Wiercigroch, M.</u> 2016 *Journal of Physics: Conference Series* **721**, 012012. Torsional vibrations of helically buckled drill-strings: Experiments and FE modelling.
- 67. Liu, Y., Pavlovskaia and <u>Wiercigroch M.</u> 2016 *Nonlinear Dynamics* **83**, 1029-1041. Experimental verification of the vibro-impact capsule model.
- 68. Poplygin, V.V., <u>Wiercigroch, M.</u> and Pavlovskaia, E.E. 2016 Forecasting changes of the wells productive coefficients for the Bashkirian-Serpukhovian deposits in the north of the Perm region. *Neftyanoe Khozyaystvo Oil Industry* **10**, 78-81.
- 69. Sayah, M., Da Silva Baptista, M., Ing, J. and <u>Wiercigroch, M</u>. 2015 *International Journal of Mechanical Sciences* **102**, 212-223. Attractor reconstruction of an impact oscillator for parameter identification.
- 70. Kapitaniak, M., Vaziri, V., Páez Chávez, J., Nandakumar, K. and <u>Wiercigroch, M.</u> 2015 *International Journal of Mechanical Sciences* **101-102**, 324-337. Unveiling complexity of drill-string vibrations: Experiments and modelling.
- 71. Saha, A., <u>Wiercigroch, M.</u>, Jankowski, K., Wahi, P., Stefański, A. 2015 *Tribology International* **90**, 185-192. Investigation of two different friction models from the perspective of friction-induced vibrations.
- 72. Najdecka, A., Narayanan, S. and <u>Wiercigroch, M.</u> 2015 *International Journal of Non-linear Mechanics* **70**, 30-38. Rotary motion of the parametric and planar pendulum under stochastic wave excitation.
- 73. Ajibose, O.K., <u>Wiercigroch, M.</u> and Akisanya, A.R. 2015 *International Journal of Mechanical Sciences* **91**, 3-11. Experimental studies of the resultant contact forces in drill bit–rock interaction.
- 74. Najdecka, A., Kapitaniak, T. and <u>Wiercigroch, M.</u> 2015 *International Journal of Non-linear Mechanics* **70**, 84-94. Rotational motion synchronization of parametric pendulums.
- 75. Yan, Y., Xu, J. and <u>Wiercigroch, M.</u> 2015 *International Journal of Non-linear Mechanics* **70**, 134-144. Non-linear analysis and quench control of chatter in plunge grinding.
- 76. Pavlovskaia, E., Hendry, D.C. and <u>Wiercigroch, M.</u> 2015 *International Journal of Mechanical Sciences* **91**, 110-119. Low dimensional models for modelling of the resonance enhanced drilling.

- 77. Sun, X., Han, F., <u>Wiercigroch, M.</u> and Shi, X. 2015 *International Journal of Non-linear Mechanics* **70**, 119-125. Effects of time-periodic inter coupling strength on burst synchronization of a clustered neuronal network.
- 78. Liu, Y., Pavlovskaia, E., <u>Wiercigroch, M.</u> and Peng, Z. 2015 *International Journal of Non-linear Mechanics* **70**, 30-46. Forward and backward motion control of a vibro-impact capsule system.
- 79. Han, Y.W., Cao, Q.J., <u>Wiercigroch, M.</u> 2015 *International Journal of Non-linear Mechanics* **70**, 145-152. Chaotic thresholds for the piecewise linear discontinuous system with multiple well potentials.
- 80. Páez Chávez, J., Vaziri, V. and <u>Wiercigroch, M.</u> 2015 *Journal of Sound and Vibration* **334**, 86-97. Modelling and experimental verification of an asymmetric Jeffcott rotor with radial clearance.
- 81. Páez Chávez, J., <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2014 *Nonlinear Dynamics* **77**, 229-230. Erratum to: Bifurcation analysis of a piecewise-linear impact oscillator with drift.
- 82. Rusinek, R., <u>Wiercigroch, M</u>. and Wahi 2014 *International Journal of Bifurcation and Chaos* **24**(9) 1450115. Influence of tool flank forces on complex dynamics of cutting system process.
- 83. Vaziri, V., Najdecka, A. and <u>Wiercigroch, M.</u> 2014 *European Physics Journal Special Topics* **223**, 795-812. Experimental control for initiating and maintaining rotation of parametric pendulum.
- 84. Rusinek, R., <u>Wiercigroch, M.</u> and Wahi, P. 2014 *International Journal of Mechanical Sciences* **89**, 167-176. Modelling of frictional chatter in metal cutting.
- 85. Cao, Q.J., Han, Y.W., Liang, T.W., <u>Wiercigroch, M.</u> and Piskarev, S. 2014 *International Journal of Bifurcation and Chaos* **24**(1) 1430005. Multiple buckling and codimension-three bifurcation phenomena of a nonlinear oscillator.
- 86. Páez Chávez, J., <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2014 *Nonlinear Dynamics* **77**, 213-227. Bifurcation analysis of a piecewise-linear impact oscillator with drift.
- 87. Yan, Y., Xu, J. and <u>Wiercigroch, M.</u> 2014 *Journal of Sound and Vibration* **333**, 937-953. Chatter in transverse grinding process.
- 88. Liu, Y., Pavlovskaia, E., Hendry, D.C. and <u>Wiercigroch, M.</u> 2013 *International Journal of Mechanical Sciences* **72**, 39–54. Vibro-impact responses of capsule system with various friction models.
- 89. Cao, Q., Xiong, Y. and Wiercigroch, M. 2013 *International Journal of Dynamics and Control* **1**, 1-11, A novel model of dipteran flight mechanism.
- 90. Liu, Y., Wiercigroch, M., Ing, J. and Pavlovskaia, E. 2013 *Philosophical Transactions of the Royal Society Part A* **371**, 20120428 (16 pages). Intermittent control of co-existing attractors.
- 91. Horton, B., Lenci, S., Pavlovskaia, E., Romeo, F', Rega, G. and <u>Wiercigroch, M.</u> 2013 *Journal of Applied Nonlinear Dynamics* **2**(2), 103-125, Stability boundaries of period-1 rotation for a pendulum under combined vertical and horizontal excitation.
- 92. Han, Y.W., Cao, Q.J. and <u>Wiercigroch, M.</u> 2013 *International Journal of Bifurcation and Chaos* **23**(4), 1350074 (22 pages), Estimation of chaotic thresholds for the recently proposed rotating pendulum.
- 93. Paez-Chavez, J. and <u>Wiercigroch, M.</u> 2013 *Communications in Nonlinear Science and Numerical Simulation* **18**, 2571–2580. Bifurcation analysis of periodic orbits of a non-smooth Jeffcott rotor model.
- 94. Liu, Y., <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2013 *International Journal of Mechanical Sciences* **66**, 2-11. Modelling of a vibro-impact capsule system.
- 95. Nandakumar, K., <u>Wiercigroch, M.</u> 2013 *Journal of Sound and Vibration* **332**(10), 2575-2592. Stability analysis of a state dependent delayed model for drill-string vibrations.
- 96. Nandakumar, K., <u>Wiercigroch, M.</u> 2013 *Applied Mathematical Modeling* **37**, 1705–1722. Galerkin projections for state-dependent delay differential equations with applications to drilling.
- 97. Strzalko, J., Grabski, J., Wojewoda, J., <u>Wiercigroch, M.</u> and Kapitaniak, T. 2012 *Chaos* **22**, 047503. Synchronous rotation of the set of double pendula: Experimental observations.
- 98. Divenyi, S., Savi, M.A, <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2012 *Nonlinear Dynamics* **70**, 1017-1035. Drill-string vibration analysis using non-smooth dynamics approach.
- 99. Kryzhevich, S.E. and Wiercigroch, M. 2012 *Physica D* **241**, 1919-1931. Topology of vibro-impact systems in the neighbourhood of grazing.
- 100. Ajibose, O., <u>Wiercigroch, M.</u>, Pavlovskaia, E., Akisanya, A.R. and Karolyi, Gy. 2012 *Journal of Applied Mechanics* **79**, 061007. Dynamics of a drifting impact oscillator with a new model of the progression phase.
- 101. Han, Y., Cao, Q., Chen, Y. and Wiercigroch, M. 2012 Science China **55**, 1832–1843. Novel smooth and discontinuous oscillator with strong irrational nonlinearities.
- 102. Han, F., Lu, Q.S., Wiercigroch, M., Fang, J.A. and Wang, Z.J. 2012 International Journal of Non-linear Mechanics 47, 1161–1166. Firing synchronization of learning neuronal networks with small-world connectivity.

- 103. Cao, Q., Wang, Wang, D., Chen, Y. and <u>Wiercigroch, M.</u> 2012 *Journal of Theoretical and Applied Mechanics* **50**(3), 701-715. Irrational elliptic functions and the analytical solutions of SD oscillator.
- 104. Paez Chavez, J., <u>Wiercigroch, M.</u> and Demrdash, H. 2012 *Journal of Physics: Conference Series* **382**, 012005. Numerical study of a Jeffcott rotor model with a snubber ring.
- 105. Sitnikova, E., Pavlovskaia, E., Ing, J. and <u>Wiercigroch, M.</u> 2012 *International Journal of Bifurcation and Chaos* **22**(5), 1230017. Experimental bifurcations of an impact oscillator with SMA constraint.
- 106. De Paula A.S., Savi, M., <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2012 *International Journal of Bifurcation and Chaos* **22**(5), 1250111. Bifurcation control of a parametric pendulum.
- 107. Pavlovskaia, E., Horton, B., <u>Wiercigroch, M.</u>, Lenci, S. and Rega, G. 2012 *International Journal of Bifurcation and Chaos* **22**(5), 1250100. Approximate rotational solutions of pendulum under combined vertical and horizontal excitation.
- 108. Nandakumar, K., <u>Wiercigroch, M.</u>, and Chaterjee, A. 2012 *Mechanics Research Communications* **43**, 7–14. Optimum energy extraction from rotational motion of a parametrically excited pendulum.
- 109. Sitnikova, E., Pavlovskaia, E.E., Ing., J. and <u>Wiercigroch, M.</u> 2012 *Smart Materials and Structures* **21**, 075028. Suppressing nonlinear resonances in impact oscillator using SMAs.
- 110. Thompson, J.M.T., Silveira, M., van der Heijden, G.H.M. and <u>Wiercigroch, M.</u> 2012 *Proceedings of the Royal Society of London Part A* **468**, 1591-1614. Helical post-buckling of a rod in a cylinder with applications to drill-strings.
- 111. Kundu, S., Banerjee, S., Ing, J., Pavlovskaia, E. and <u>Wiercigroch, M</u>. 2012 *Physica D* **241,** 553–565. Singularities in soft impacting systems.
- 112. Han, F., Zhen, B., Du, Y., Zheng, Y. and <u>Wiercigroch, M.</u> 2011 *Discrete and Continuous Dynamical Systems B* **16**(2), 457–474. Global Hopf bifurcation analysis of a six-dimensional Fitzhugh-Nagumo neural network with delay by a synchronized scheme.
- 113. Bodai, T. and Wiercigroch, M. 2011 *International Journal of Bifurcation and Chaos* **21**, 177–194. Acoustic ray stability for long-range sound speed profile transition scenarios.
- 114. Cao, Q., Xiong, Y.P. and Wiercigroch, M. 2011 *Journal of Applied Analysis and Computation* **1**(2), 219–227. Resonances of the SD oscillator on the discontinuous phase.
- 115. Horton, B.H., Sieber, J., Thompson, J.M.T. and <u>Wiercigroch, M.</u> 2011 *International Journal of Non-linear Mechanics* **46**, 436-442. Dynamics of the nearly parametric pendulum.
- 116. Han, F., <u>Wiercigroch, M.</u>, Fang, J.A. and Wang, Z. 2011 *International Journal of Neural Systems* **21**(5), 415–425. Degree of excitement and synchronization of small-world neuronal networks with synapse plasticity.
- 117. Ing, J., Pavlovskaia, E., <u>Wiercigroch, M.</u> and Banerjee, S. 2010 *International Journal of Bifurcation and Chaos* **20**(11), 3801-3817. Complex dynamics of bilinear oscillator close to grazing.
- 118. Ajibose, O., Wiercigroch, M., Pavlovskaia, E. and Akisanya, A.R. 2010 *International Journal of Non-linear Mechanics* **45**, 850-858. Influence of contact force models on the global and local dynamics of drifting impact oscillator.
- 119. Sitnikova, E., Pavlovskaia, E.E., <u>Wiercigroch, M.</u> and Savi, M.A. 2010 *International Journal of Non-linear Mechanics* **45**, 837-849. Vibration control of impact oscillator with SMA constraint.
- 120. Cao, Q., <u>Wiercigroch, M.,</u> Pavlovskaia, E. and Yang, S. 2010 *Acta Mechanica Sinica* **26**(3), 467-475. Bifurcations and the penetrating rate analysis of a model for percussive drilling.
- 121. Ma, L., Korsunsky, A.M. and <u>Wiercigroch, M.</u> 2010 *International Journal of Solids and Structures* **47**(7-8), 1082-1089. Dislocation model of localized plastic deformation initiated with a flat punch.
- 122. Ing, J., Pavlovskaia, E., <u>Wiercigroch, M.</u> and Banerjee, S. 2010 *Physica D* **239**, 312-321. Bifurcation analysis of an impact oscillator with one sided elastic constraint near grazing.
- 123. Litak, G., <u>Wiercigroch, M.</u>, Horton, B. and Xu, X. 2010 *Z. Angew. Math. Mech.* **90**(1), 33-41. Transient chaotic behaviour versus periodic motion of a parametric pendulum by recurrence plots.
- 124. Bodai, T., Fenwick, A.J. and <u>Wiercigroch, M.</u> 2009 *International Journal of Bifurcation and Chaos* **19**, 2953-2964. Ray stability for background sound speed profiles with transition.
- 125. Srinil, N., <u>Wiercigroch, M.</u> and O'Brien, P. 2009 *Ocean Engineering* **36**, 1404-14014. Reduced order modelling of vortex-induced vibration of catenary riser.
- 126. Verichev, N.N., Verichev, S.N. and <u>Wiercigroch, M.</u> 2009 *Chaos, Solitons and Fractals* **42**, 686-701. Coscillators and stability of stationary cluster structures in lattices of diffusively coupled oscillators.
- 127. Banerjee, S., Ing, J., Pavlovskaia, E., <u>Wiercigroch, M.</u> and Reddy, R. 2009 *Physical Review E* **79**, 037201. Invisible grazing and dangerous bifurcations in impacting systems.
- 128. Bodai, T., Fenwick, A.J. and <u>Wiercigroch, M.</u> 2009 *Journal of Sound and Vibration* **324**, 350-360. New graphical tools for studying acoustic ray propagation.

- 129. Du, Y., Lu, Q., Wang, S. and <u>Wiercigroch, M.</u> 2009 *International Journal of Non-linear Mechanics* **44**, 432-440. A new method for characterizing patters of neural spike trains and its application.
- 130. Han, F., Lu, Q., <u>Wiercigroch, M.</u> and Li, Q. 2009 *International Journal of Non-linear Mechanics* **44**, 298-303. Chaotic burst synchronization in heterogeneous small-world neuronal network with noise.
- 131. Wojewoda, J., Stefanski, A., <u>Wiercigroch, M.</u> and Kapitaniak, T. 2009 *Archives of Applied Mechanics* **79**, 667-677. Estimation of Lyapunov exponents for a system with sensitive friction model.
- 132. Han, F., Lu, Q., Wiercigroch, M. and Ji, Q. 2009 *Chinese Physics B* **18**(2), 482-488. Complete and phase synchronization in heterogeneous small-world networks.
- 133. Wang, S. and Wiercigroch, M. 2009 *Chaos, Solitons & Fractals* **41**, 1784-1790. Forced oscillators with nonlinear spring: A simple analytical approach.
- 134. Verichev, N.N., Verichev, S.N. and <u>Wiercigroch, M.</u> 2009 *Chaos, Solitons & Fractals* **41**, 752-763. Asymptotic theory of chaotic synchronization for dissipative-coupled dynamical systems. doi:10.1016/j.chaos.2008.03.007
- 135. Litak, G., Syta, A. and <u>Wiercigroch, M.</u> 2009 *Chaos, Solitons & Fractals* **40**, 2095-2101. Identification of chaos in a cutting process by the 0-1 test.
- 136. Sitnikova, E., Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2008 *European Physical Journal Special Topics* **165**, 229 238. Dynamics of impact oscillator with SMA constraint.
- 137. Litak, G., Borowiec, M. and <u>Wiercigroch, M.</u> 2008 *Dynamical Systems: An International Journal* **23**(3), 259-265. Phase locking and rotational motion of a kinematically forced pendulum in noisy and chaotic conditions.
- 138. <u>Wiercigroch, M.</u>, Krivtsov, A.M. and Wojewoda, J. 2008 *Journal of Theoretical and Applied Mechanics* **46**(3), 715-726. Vibrational energy transfer via modulated impacts for percussive drilling.
- 139. Bodai, T., Fenwick, A.J. and <u>Wiercigroch, M.</u> 2008 *International Journal of Bifurcation and Chaos* **18**(5), 1579-1587. Ray chaos in underwater acoustics and its application applications.
- 140. Jaksic, N., Foong, C-H., <u>Wiercigroch, M.</u> and Boltezar, M. 2008 *International Journal of Mechanical Sciences* **50**, 1142-1152. Parameter identification and modelling of the fatigue testing rig.
- 141. Mazzilli, C.E.N., Sanches, C.T., Baracho Neto, O.G.P., <u>Wiercigroch, M.</u> and Keber, M. 2008 *International Journal of Non-linear Mechanics* **43**(6), 551-561. Non-linear modal analysis for beams subjected to axial loads: Analytical and Finite Element solutions.
- 142. Keber, M. and <u>Wiercigroch, M.</u> 2008 *Journal of Sound and Vibration* **315**, 685-699. Dynamics of vertical riser with weak structural nonlinearity excited by wakes.
- 143. Ma, Y., Ing, J., Banerjee, S., <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2008 *International Journal of Non-linear Mechanics* **43**(6), 504-513. The nature of the normal form map for soft impacting systems.
- 144. <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2008 *International Journal of Non-linear Mechanics* **43**(6), 459-461. Nonlinear dynamics of engineering systems.
- 145. Cao, Q. <u>Wiercigroch, M.,</u> Pavlovskaia, E.E., Grebogi, C. and Thompson, J.M.T. 2008 *International Journal of Non-linear Mechanics* **43**(6), 462-473. The limit case response of the archetypal oscillator for smooth and discontinuous dynamics.
- 146. de Souza, S.L.T., <u>Wiercigroch, M.</u>, Caldas, I.L. and Balthazar, J.M. 2008 *Chaos, Solitons & Fractals* **38**, 864-869. Suppressing grazing chaos in impacting system by structural nonlinearity.
- 147. <u>Wiercigroch, M.</u> 2008 *Philosophical Transactions of the Royal Society Part A* **366**, 1227-1229. Introduction. Experimental nonlinear dynamics of fluids.
- 148. Wojewoda, J., Stefanski, A., <u>Wiercigroch, M.</u> and Kapitaniak, T. 2008 *Philosophical Transactions of the Royal Society Part A* **366**, 747-765. Hysteretic effects of dry friction: Modelling and experimental studies.
- 149. Horton, B., <u>Wiercigroch, M.</u> and Xu, X. 2008 *Philosophical Transactions of the Royal Society Part A* **366**, 767-784. Transient tumbling chaos and damping identification for parametric pendulum.
- 150. Ing, J., Pavlovskaia, E.E., <u>Wiercigroch, M.</u> and Banerjee, S. 2008 *Philosophical Transactions of the Royal Society Part A* **366**, 679-704. Experimental study of impact oscillator with one sided elastic constraint.
- 151. <u>Wiercigroch, M.</u> 2008 *Philosophical Transactions of the Royal Society Part A* **366**, 675-678. Introduction. Experimental nonlinear dynamics of solids.
- 152. Lenci, S., Pavlovskaia, E.E., Rega, G. and <u>Wiercigroch, M.</u> 2008 *Journal of Sound and Vibration* **310**(1-2), 243-259. Rotating solutions and stability of parametric pendulum by perturbation method.
- 153. Cao, Q. <u>Wiercigroch, M.</u>, Pavlovskaia, E.E., Thompson, J.M.T. and Grebogi, C. 2008 *Philosophical Transactions of the Royal Society Part A 366, 635-652. Piecewise linear approach to an archetypal oscillator for smooth and discontinuous dynamics.*
- 154. Cao, Q. <u>Wiercigroch, M.,</u> Pavlovskaia, E.E., Grebogi, C. and Thompson, J.M.T. 2007 *Zhendong Gongcheng Xuebao/Journal of Vibration Engineering* **20**, 454-458. SD oscillator, attractors and their applications.

- 155. Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2007 *Journal of Sound and Vibration* **305**, 750-771. Low dimensional maps for piecewise smooth oscillators.
- 156. Foong, C.H., <u>Wiercigroch, M.,</u> Pavlovskaia, E. and Deans, W.F. 2007 *Journal of Sound and Vibration* **303**(1-2), 58-77. Nonlinear vibration caused by fatigue.
- 157. Verichev, N.N., Verichev, S.N. and <u>Wiercigroch, M.</u> 2007 *Chaos, Solitons & Fractals* **34**(4), 1082-1104. Physical interpretation and theory of existence of cluster structures in lattices of dynamical systems.
- 158. Xu, X. Pavlovskaia, E.E., <u>Wiercigroch, M.</u>, Romeo, F. and Lenci, S. 2007 *Z. Angew. Math. Mech.* **87**(2), 172-187. Dynamic interactions between parametric pendulum and electrodynamical shaker: effect of non-ideal excitation source.
- 159. Xu, X. and <u>Wiercigroch, M.</u> 2007 *Nonlinear Dynamics* **47**(1-3), 311-320. Approximate analytical solutions for oscillatory and rotational motion of a parametric pendulum.
- 160. Cao, Q., <u>Wiercigroch M.</u>, Pavlovskaia, E.E. Grebogi, C., and Thompson, J.M.T. 2006 *Physical Review E* **74**, 046218 (5 pages). Archetypal oscillator for smooth and discontinuous dynamics.
- 161. Karpenko, E.V., <u>Wiercigroch, M.</u>, Pavlovskaia, E.E. and Neilson, R.D. 2006 *Journal of Sound and Vibration* **298**(4-5), 907-917. Experimental verification of Jeffcott rotor model with preloaded snubber ring.
- 162. Foong, C.H., <u>Wiercigroch, M.</u> and Deans, W.F. 2006 *Measurement Science and Technology* **17**, 2218-2226. Novel dynamic fatigue-testing device: Design and measurements.
- 163. Wiercigroch, M. 2006 *Journal of the Brazilian Society of Mechanical Sciences and Engineering* **28**(4), 521-528. Applied nonlinear dynamics of non-smooth dynamical systems.
- 164. Ing, J., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2006 *Nonlinear Dynamics* **46**, 225-238. Dynamics of a nearly symmetrical piecewise oscillator close to grazing incidence: Modelling and experimental verification.
- 165. Stefanski, A., Wojewoda, J., <u>Wiercigroch, M.</u> and Kapitaniak, T. 2006 *Proceedings of Institution of Mechanical Engineers Part C* **220**(3), 273-284. Regular and chaotic oscillations of friction force.
- 166. Woo, K.-C., Rodger, A.A., Neilson, R.D. and <u>Wiercigroch, M.</u> 2006 *Meccanica* **41**, 269-282. Phase shift adjustment for Harmonic Balance Method applied to vibro-impact systems.
- 167. Xu, X., <u>Wiercigroch, M.</u> and Cartmell, M.P. 2006 *Chaos, Solitons and Fractals* **29**(5), 1045. Erratum to "Rotating solutions for a parametrically driven pendulum." [Chaos Solitons & Fractals 23 (2005) 1537 1548]
- 168. Fenwick, A.J., <u>Wiercigroch, M.</u> and Champneys, A.R. 2005 *IMA Journal of Applied Mathematics* **70**, 603-604. Preface.
- 169. <u>Wiercigroch, M.</u>, Wojewoda, J. and Krivtsov, A.M. 2005 *Journal of Sound and Vibration* **280**(3-5), 739-757. Dynamics of ultrasonic percussive drilling of hard rocks.
- 170. Emans, J., <u>Wiercigroch, M.</u> and Krivtsov, A.M. 2005 *Chaos, Solitons and Fractals* **23**(5), 1661-1670. Cumulative effect of structural nonlinearities: Dynamics of a cantilever beam system with impacts.
- 171. Xu, X., <u>Wiercigroch, M.</u> and Cartmell, M.P. 2005 *Chaos, Solitons and Fractals* **23**(5), 1537-1548. Rotating solutions for a parametrically driven pendulum.
- 172. Pavlovskaia, E.E., <u>Wiercigroch, M.</u> and Grebogi, C. 2004 *Physical Review E* **70**, 036201 (10 pages). Two dimensional map for impact oscillator with drift.
- 173. Pavlovskaia, E.E., Karpenko, E.V. and <u>Wiercigroch, M.</u> 2004 *Journal of Sound and Vibration* **276**(1-2), 361-379. Nonlinear dynamic interactions of a Jeffcott rotor with a preloaded snubber ring.
- 174. Warminski, J., Litak, G., Cartmell, M.P., Khanin, R., <u>Wiercigroch, M.</u> 2004 *Journal of Sound and Vibration* **272**(1-2), 469-470. Erratum to "Approximate analytical solutions for primary chatter in nonlinear metal cutting model".
- 175. Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2004 *Chaos, Solitons and Fractals* **19**(1), 151-161. Analytical drift reconstruction for an impact system operating in periodic and chaotic regimes.
- 176. Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2003 *International Journal of Mechanical Sciences* **45**(4), 623-641. Modelling of vibro-impact system driven by beat frequency.
- 177. Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2003 *Journal of Sound and Vibration* **267**(4), 893-911. Periodic solutions finder for an impact system with a drift.
- 178. Zak, A., Cartmell, M.P., Ostachowicz, W. and <u>Wiercigroch, M.</u> 2003 *Smart Materials and Structures* **12**, 338-346. One-dimensional SMA models for use with reinforced composite structures.
- 179. <u>Wiercigroch, M.</u> and Rodger, A.A. 2003 *Meccanica* **38**(2), 181-183. Control and condition monitoring of engineering systems.
- 180. Foong, C-H., <u>Wiercigroch, M.</u>, Deans, W.F. and Pavlovskaia, E.E. 2003 *Chaos, Solitons and Fractals* **16**, 651-659. Chaos caused by fatigue crack growth.
- 181. Stefanski, A., Wojewoda, J., <u>Wiercigroch, M.</u> and Kapitaniak, T. 2003 *Chaos, Solitons and Fractals* **16**, 661-664. Chaos caused by non-reversible dry friction.

- 182. Karpenko, E.V., <u>Wiercigroch, M.</u> and Pavlovskaia, E.E. 2003 *Chaos, Solitons and Fractals* **15**, 407-416. Bifurcation analysis of the preloaded Jeffcott rotor.
- 183. Warminski, J., Litak, G., Cartmell, M.P., Khanin, R., <u>Wiercigroch, M.</u> 2003 *Journal of Sound and Vibration* **259**(4), 917-933. Approximate analytical solutions for primary chatter in nonlinear metal cutting model.
- 184. <u>Wiercigroch, M.</u>, Kreuzer, E. and Kapitaniak, T. 2003 *Meccanica* **38**(1), 1-3. Nonlinear dynamics of mechanical systems.
- 185. Pavlovskaia, E.E., <u>Wiercigroch, M.</u>, Woo, K-C. and Rodger, A.A. 2003 *Meccanica* **38**(1), 85-97. Modelling of a vibro-impact ground moling system by an impact oscillator with a frictional slider.
- 186. Foong, C-H., <u>Wiercigroch, M.</u> and Deans, W.F. 2003 *Meccanica* **38**(1), 19-31. An experimental rig to investigate fatigue crack growth under dynamic loading.
- 187. Karpenko, E., <u>Wiercigroch, M.</u>, Pavlovskaia, E.E and Cartmell, M.P. 2002 *International Journal of Mechanical Sciences* **44**(3), 475-488. Piecewise approximate analytical solutions for a Jeffcott rotor with a snubber ring.
- 188. Karpenko, E., <u>Wiercigroch, M.</u> and Cartmell, M.P. 2002 *Chaos, Solitons and Fractals* **13**(6), 1231-1242. Regular and chaotic dynamics of a discontinuously nonlinear rotor system.
- 189. Pavlovskaia, E.E., <u>Wiercigroch, M.</u> and Grebogi, C. 2001 *Physical Review E* **64**, 056224 (9 pages). Modelling of an impact system with a drift.
- 190. Loong, K-S.V., Wojewoda, J. and <u>Wiercigroch, M.</u> 2001 *Proceedings of the Institution of Mechanical Engineers Part C* **215**, 965-972. Design of load cell for measurement ultrasonic percussive drilling forces.
- 191. Foong, C-H., <u>Wiercigroch, M.</u> and Deans, W.F. 2001 *Mechanics and Mechanical Engineering* **5**(1), 55-68. Experimental study of nonlinear metal cutting.
- 192. Krivtsov, A.M. and <u>Wiercigroch, M.</u> 2001 *Materials Physics and Mechanics* **3**(1), 45-51. Molecular dynamics simulation of mechanical properties of polycrystal materials.
- 193. <u>Wiercigroch, M.</u> and Budak, E. 2001 *Philosophical Transactions of the Royal Society of London: Part A* **359**, 663-693. Nonlinearities, chatter generation and suppression in metal cutting.
- 194. <u>Wiercigroch, M.</u> and Krivtsov, A.M. 2001 *Philosophical Transactions of the Royal Society of London: Part A* **359**, 713-738. Frictional chatter in orthogonal metal cutting.
- 195. <u>Wiercigroch, M. 2001 Philosophical Transactions of the Royal Society of London: Part A **359**, 661-662. Nonlinear dynamics in metal cutting: Preface.</u>
- 196. Stefanski, A., Wojewoda, J. and <u>Wiercigroch, M.</u> 2000 *Mechanics and Mechanical Engineering* **4**(2), 127-137. Numerical analysis of Duffing oscillator with dry friction damper.
- 197. Kapitaniak, T. and Wiercigroch, M. 2000 Chaos, Solitons and Fractals 11(15), 2411-2412. Dynamics of impact oscillators: An introduction.
- 198. Krivtsov, A.M. and <u>Wiercigroch, M.</u> 2000 *Chaos, Solitons and Fractals* **11**(15), 2479-2485. Penetration rate prediction for percussive drilling via dry friction model.
- 199. <u>Wiercigroch, M.</u> 2000 *Chaos, Solitons and Fractals* **11**(15), 2429-2442. Modelling of dynamical systems with motion dependent discontinuities.
- 200. Woo, K-C., Rodger, A.A., Neilson, R.D., and <u>Wiercigroch, M.</u> 2000 *Chaos, Solitons and Fractals* **11**(15), 2515-2425. Application of HB method to periodic responses of a vibro-impact moling system.
- 201. Krivtsov, A.M. and Wiercigroch, M. 1999 Meccanica 34(6), 425-434. Dry friction model of percussive drilling.
- 202. <u>Wiercigroch, M.</u>, Neilson, R.D. and Player, M.A. 1999 *Physics Letters A* **259**(2), 91-96. Material removal rate prediction for ultrasonic drilling of hard materials using impact oscillators approach.
- 203. <u>Wiercigroch, M.</u>, Sin, V.W.T. and Liew, Z.F.K. 1999 *Proceedings of the Institution of Mechanical Engineers, Part C* **213**, 527-534. Non-reversible dry friction oscillator: design and measurements.
- 204. Sin, V.W.T. and <u>Wiercigroch, M.</u> 1999 *Proceedings of the Institution of Mechanical Engineers Part C* **213** 241-249. The design of a symmetrically piecewise oscillator for measurement of chaotic vibration.
- 205. <u>Wiercigroch, M.</u>, Badiey, M., Simmens, J. and Cheng, A.H-D. 1999 *Journal of Sound and Vibration* **220**(5), 771-786. Nonlinear dynamics of underwater acoustics.
- 206. <u>Wiercigroch, M.</u>, Neilson, R.D. and Player, M.A. 1998 *Proceedings of the Institution of Mechanical Engineers Part E* **212**(E4), 263-270. Load cell for dynamic measurement of cutting forces generated during ultrasonic drilling and milling of hard materials.
- 207. Wiercigroch, M., Cheng, A.H-D., Simmens, J. and Badiey, M. 1998 *Chaos, Solitons and Fractals* **9**(1-2), 193-207. Nonlinear behavior of acoustic rays in underwater sound channel.
- 208. <u>Wiercigroch, M.</u>, Sin, V.W.T. and Li, K. 1998 *Chaos, Solitons and Fractals* **9**(1-2), 209-220. Measurement of chaotic vibration in symmetrically piecewise linear oscillator.
- 209. <u>Wiercigroch, M</u>. and Sin, V.W.T 1998 *Transactions of ASME Journal of Applied Mechanics* **65**, 657-663. Experimental study of a symmetrical piecewise base-excited oscillator.

- 210. <u>Wiercigroch, M.</u> 1997 *Transactions of ASME Journal of Vibration and Acoustics* **119**(3), 468-475. Chaotic vibrations of a simple model of the machine tool-cutting process system.
- 211. Wiercigroch, M. and Cheng, A.D-H. 1997 *Chaos, Solitons and Fractals* **8**(4), 715-726, Chaotic and stochastic dynamics of metal cutting process.
- 212. <u>Wiercigroch, M.</u> and Cheng, A.H-D. 1996 *Machine Vibration* **5**(3), 229-235, Non-linear dynamics of acoustic wave propagation in underwater sound channel.
- 213. Wiercigroch, M. 1996 Machine Vibration 5(2), 112-119. On modelling discontinuities in mechanical systems.
- 214. <u>Wiercigroch, M.</u> 1995 *Archive of Mechanical Engineering* **42**, 151-165, Complex dynamics of a simple machine tool-cutting process system.
- 215. <u>Wiercigroch, M.</u> 1994 *Journal of Sound and Vibration* **175**(5), 700-704. A note on the switch function for the stick-slip phenomenon.
- 216. <u>Wiercigroch, M.</u> 1994 *Archive of Mechanical Engineering* **41**, 29-38. A numerical method for calculating dynamic responses in the machine tool-cutting process system.
- 217. <u>Wiercigroch, M</u>. 1994 *Chaos, Solitons and Fractals* **4**(2), 297-303. Bifurcation analysis of harmonically excited linear oscillator with clearance.
- 218. Wiercigroch, M. 1994 Mechanics 143, 125-132. Numerical study of stick-slip phenomenon.
- 219. Wiercigroch, M., Neilson, R. D., Player, M. A. and Barber, H. 1993 *Machine Vibration* **2**(4), 187-197. Experimental study of rotary ultrasonic machining: Dynamic aspects.
- 220. Neilson, R.D., Player, M. A., and <u>Wiercigroch, M.</u> 1993 *Machine Vibration* **2**(3), 136-143. Dynamic model of ultrasonic drilling.
- 221. <u>Wiercigroch, M.</u> 1993 *Journal of Sound and Vibration* **167**(3), 560-563 Comments on the study of a harmonically excited linear oscillator with a Coulomb damper.
- 222. <u>Wiercigroch, M.</u> and Kosmol, J. 1993 *GÊP* **44**, 33-42. Active control of non-linear vibration in the machine tool-cutting process system.
- 223. Powell, J.A. and <u>Wiercigroch, M.</u> 1992 *Machine Vibration* **1**(2), 94-104. Influence of non-reversible Coulomb characteristics on the response of a harmonically excited linear oscillator.
- 224. Tyrlik, T. and <u>Wiercigroch, M.</u> 1988 *Mechanik* **9**, 411-414. Mathematical modelling and numerical simulation of rough holeboring process (in Polish).

# **Book Chapters/Contributions to Edited Volumes**

- 225. Wang, D., Hao, Z., Chen, Y., <u>Wiercigroch, M.</u> 2022 Response analysis of a rotating tapered beam. *Lecture Notes in Electrical Engineering* **799**, 682-694.
- 226. Kapitaniak, M., Vaziri, V., <u>Wiercigroch, M.</u> 2018 Helical buckling of thin rods: FE modelling. *MATEC Web of Conferences* **211**, 02010.
- 227. <u>Wiercigroch, M.</u>, Kapitaniak, M., Vaziri, V., Nandakumar, K. 2018 Complex dynamics of drill-strings: Theory and experiments. *MATEC Web of Conferences* **211**, 01002.
- 228. Ajala, O., Pavlovskaia, E., <u>Wiercigroch, M.</u> 2018 Finite element modelling of the dynamics of groovy ball bearings. *MATEC Web of Conferences* **211**, 16004.
- 229. Vaziri, V., Kapitaniak, M., <u>Wiercigroch, M.</u> 2018 Suppression of drill-string stick-slip vibration. *MATEC Web of Conferences* **211**, 16008.
- 230. Kapitaniak, M., Vaziri, <u>Wiercigroch, M.</u> 2018 Helical buckling of drill-strings *MATEC Web of Conferences* **148**, 16007.
- 231. Yari, N., Kapitaniak, M., Vaziri, Ma, L., <u>Wiercigroch, M</u>. 2018 Calibrated FEM modelling of rock cutting with PDC cutter. *MATEC Web of Conferences* **148**, 16006.
- 232. Morrison, R.A. and <u>Wiercigroch, M.</u> 2013 *Proc. IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design,* 27 30 July 2010, Aberdeen, UK. Stability of the elliptically excited pendulum using the homoclinic Melnikov function.
- 233. Ajibose, O.A., <u>Wiercigroch, M.</u>, Pavlovskaia, E., Akisanya, A.R. and Karoyli, Gy. 2013 *Proc. IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design*, 27 30 July 2010, Aberdeen, UK. Dynamics of a drifting impact oscillator with a conical profile.
- 234. Keber, M., <u>Wiercigroch, M.</u> and Warminski, J. 2013 *Proc. IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design,* 27 30 July 2010, Aberdeen, UK. Parametric study of lockin detection in Vortex-Induced Vibration of flexible risers.

- 235. Najdecka, A., <u>Wiercigroch, M.</u> and Vaziri, V. 2013 *Proc. IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design,* 27 30 July 2010, Aberdeen, UK. Dynamics and sychronization of parametric pendulums
- 236. Nandakumar, K., <u>Wiercigroch, M.</u> and Pearson, C. 2013 *Proc. IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design,* 27 30 July 2010, Aberdeen, UK. Bit-bounce and stick-slip in drill-string dynamics.
- 237. Silveira, M., Wang, C. and <u>Wiercigroch, M.</u> 2013 *Proc. IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design,* 27 30 July 2010, Aberdeen, UK. Analysis of stick-slip oscillations of drill-string via Cosserat rod model
- 238. <u>Wiercigroch, M.</u> and Pavlovskaia, E. 2011 In *Nonlinear Dynamic Phenomena in Mechanics. Solid Mechanics and Its Applications* Vol. **178**, Springer, 207-269. Engineering applications of non-smooth dynamics.
- 239. Ing, J., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2011 In *IUTAM Book Series*, Vol. **30**, Ed. Stepan, G. (Springer), 135-143. Complex nonlinear response of a piecewise linear oscillator: Experiment and simulation.
- 240. Keber, M. and Wiercigroch, M. 2007 In *IUTAM Book Series*, Vol. **8**, Ed. Kreuzer, E. (Springer), 155-166. *Proc. IUTAM Symposium on Fluid-Structure Interactions in Ocean Engineering*, 23 27 July 2007, Hamburg, Germany. A reduced order model for study of vortex-induced vibration of a vertical off-shore riser oscillating in lock-in conditions.
- 241. Horton, B. and Wiercigroch, M. 2007 In *IUTAM Book Series*, Vol. **8**, Ed. Kreuzer, E. (Springer), 117-128. *Proc. IUTAM Symposium on Fluid-Structure Interactions in Ocean Engineering*, 23 27 July 2007, Hamburg, Germany. Wave excited parametric pendula for energy extraction.
- 242. Bodai, T., Wiercigroch, M. and Fenwick, A.J. 2007 In *IUTAM Book Series*, Vol. **2**, Eds. Hu, H. and Kreuzer, E. (Springer), 137-146. *Proc. IUTAM Symposium on Dynamics and Control of Nonlinear Systems with Uncertainty*, 18 22 September 2006, Nanjing, China. Ray-stability for range-dependent background sound-speed profiles.
- 243. Wiercigroch, M., Pavlovskaia, E.E. and Karpenko, E. 2005 In *Solid Mechanics and its Applications* Vol. **122**, Eds. Rega, G. and Vestroni, F. (Springer), 323-332. *Proc. IUTAM Symposium on Chaotic Dynamics and Control of Systems and Processes in Mechanics*, 8-13 June 2003, Rome, Italy. Dynamics of non-smooth mechanical systems: Theoretical and experimental studies.
- 244. Pavlovskaia, E.E. and Wiercigroch, M. 2005 In Solid Mechanics and its Applications Vol. 122, Eds. Rega, G. and Vestroni, F. (Springer), 305-312. Proc. IUTAM Symposium on Chaotic Dynamics and Control of Systems and Processes in Mechanics, 8-13 June 2003, Rome, Italy. Two dimensional map for impact oscillator with drift.
- 245. Wiercigroch, M. 2000 In *Handbook of Machinery Dynamics* Eds. Faulkner, L. and Logan, E. (New York: Marcel Decker, Inc.) 139-168. Chapter 6: Nonlinear dynamics of machine tool cutting process interactions.
- 246. Wiercigroch, M. 2000 In *Applied Nonlinear Dynamics and Chaos of Mechanical Systems with Discontinuities* Eds. Wiercigroch, M. and de Kraker, A. *Nonlinear Science Series A* Vol. **28** (Singapore: World Scientific), 17-38. Mathematical models of mechanical systems with discontinuities.
- 247. <u>Wiercigroch, M.</u> and de Kraker, A. 2000 In *Applied Nonlinear Dynamics and Chaos of Mechanical Systems with Discontinuities* Eds. <u>Wiercigroch, M.</u> and de Kraker, A. *Nonlinear Science Series* **A** Vol. **28** (Singapore: World Scientific), 1-15. Preliminaries.
- 248. Wiercigroch, M. 2000 In *Applied Nonlinear Dynamics and Chaos of Mechanical Systems with Discontinuities* Eds. Wiercigroch, M. and de Kraker, A. *Nonlinear Science Series* **A** Vol. **28** (Singapore: World Scientific), 361-401. Nonlinear dynamics of orthogonal metal cutting.
- 249. <u>Wiercigroch, M.</u> and Krivtsov, A. and Wojewoda, J. 2000 In *Applied Nonlinear Dynamics and Chaos of Mechanical Systems with Discontinuities* Eds. <u>Wiercigroch, M.</u> and de Kraker, A. *Nonlinear Science Series* **A** Vol. **28** (Singapore: World Scientific), 403-444. Dynamics of high frequency percussive drilling of hard materials.
- 250. Warminski, J. Litak, G., Lipski, J., <u>Wiercigroch, M.</u> and Cartmell, M.P. 1999 In *Solid Mechanics and its Applications* Vol. **73**, Eds Lavendis, E. and Zakrzevsky, M. (Dortrecht: Kluwer Academic Publisher), 275-283. *Proc. IUTAM/IFTOMM Symposium: Synthesis of Nonlinear Dynamical Systems*, 24-28 August 1998, Riga, Latvia. Chaotic vibration in regenerative cutting process.
- 251. Wiercigroch, M. 1998 In *Solid Mechanics and its Applications* Vol. **63**, Ed. Moon, F.C. (Dortrecht: Kluwer Academic Publisher), 313-322. *Proc. IUTAM Symposium on New Applications of Nonlinear and Chaotic Dynamics in Mechanics*, July 31- 2 August, 1997, Cornell University, Ithaca, US. Nonlinear dynamics of mechanical systems with discontinuities.

- 252. Wiercigroch, M. 1997 In *Multi-Body Dynamics: Monitoring and Simulation Techniques* Eds. Rahnejat, H. and Whalley, R. (London: MEP), 379-394. Chaotic vibration of a simple model of the machine tool-cutting process system.
- 253. <u>Wiercigroch, M.</u> and Cheng, A.D-H. 1997 In *Multi-Body Dynamics: Monitoring and Simulation Techniques* Eds. Rahnejat, H. and Whalley, R. (London: MEP), 351-366. Chaotic and stochastic dynamics of metal cutting process.

## Refereed Conference Papers (selected list)

- 254. Wiercigroch, M., Kozhevnikov, E.V., Turbakov, M.S., Poplygin, V.V., Riabokon, E.P. 2021 *Proceedings of 7th Scientific Exploration Conference, Tyumen 2021, Russia.* Effective pressure and bedding depth influence on the oil fields reservoir properties.
- 255. <u>Wiercigroch, M., Vaziri, V. and Kapitaniak, M. 2017 SPE/IADC Drilling Conference and Exhibition, 14-16 March 2017, Hague, Netherlands, SPE-184665-MS. RED: Revolutionary drilling technology for hard rock formations.</u>
- 256. Ayaz, B., Allen, A. and <u>Wiercigroch, M. Proceedings of the 8th International Conference on Sensing Technology, Liverpool, 2014.</u> Dynamically reconfigurable routing protocol design for underwater wireless sensor network.
- 257. Páez Chávez, J., <u>Wiercigroch, M.,</u> Vaziri Hamaneh, V. *Proceedings of the 5th International Conference on Structural Engineering, Mechanics and Computation (SEMC 2013), Cape Town, South Africa, 2013.*Bifurcation analysis of a Jeffcott rotor with a bearing clearance: Numerics and experiments.
- 258. Páez Chávez, J., Pavlovskaia, E., <u>Wiercigroch, M.</u> Proceedings of the 5th International Conference on Structural Engineering, Mechanics and Computation (SEMC 2013), Cape Town, South Africa, 2013. Numerical bifurcation analysis of an impact oscillator with drift.
- 259. De Paula, A., Savi, M.A., Vaziri, V., <u>Wiercigroch, M.</u> and Pavlovskaia, E. *XV International Symposium on Dynamic Problems of Mechanics (DINAME 2013)*, Buzios, RJ, Brazil, 17-22 February 2013. Numerical and experimental bifurcation control in a parametrically excited pendulum.
- 260. Pavlovskaia, E., Postnikov, A. and <u>Wiercigroch, M.</u> XV International Symposium on Dynamic Problems of Mechanics (DINAME 2013), Buzios, RJ, Brazil, 17-22 February 2013. Predicting vortex induced vibrations using CFD and wake oscillator models.
- 261. Páez Chávez, J., <u>Wiercigroch, M.,</u> Demrdash, H. *Proceedings of the Modern Practice in Stress and Vibration Analysis Conference (MPSVA 2012), Glasgow, United Kingdom, 2012.* Numerical study of a jeffcott rotor model with a snubber ring.
- 262. Liu, Y., <u>Wiercigroch, M.</u> and Ing, J. 2012 *2nd International Symposium on Machine and Mechanisms*, Tokyo, Japan, 7-10 November 2012. Control of co-exiting attractors.
- 263. Postnikov, A., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2012 *10th International Conference on Flow Induced Vibration*, Dublin, Ireland, 2 6 July 2012. Modelling of vortex induced vibrations of slender marine structures.
- 264. Wiercigroch, M., Najdecka, A. and Vaziri, V. 2011 10th International Conference on Vibration Problems, Prague, Czech Republic, 5 8 September 2011. Nonlinear dynamics of pendulums system for energy harvesting.
- 265. Najdecka, A., Vaziri, V. and Wiercigroch, M. 2011 International Conference on Renewable Energies and Power Quality (ICREPQ'11), Las as Palmas de Gran Canaria (Spain), 13 15 April 2011, Synchronization control of parametric pendulums for wave energy extraction.
- 266. Srinil, N., O'Brien, P. and Wiercigroch, M. 2010 29th International Conference on Ocean, Offshore and Arctic Engineering (OMAE 2010), 6 11 June, 2010 Shanghai. Numerical and experimental comparisons of Vortex-Induced Vibrations of marine risers in uniform/sheared currents, 1-10.
- 267. Pavlovskaia, E., Ing, J., Banerjee, S. and <u>Wiercigroch, M. Proc. XIX AIMETA Congress</u>, 14 17 September 2009, Ancona, Italy. Strange dynamics of bilinear oscillator close to grazing.
- 268. Ajibose. O., <u>Wiercigroch, M.</u>, Pavlovskaia, E. And Akisanya, A.R. *Proc. ASME 2009 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference IDETC/CIE*, 30 August 2 September 2009, San Diego, USA. Contact force models and dynamics of a drifting oscillator.
- 269. Silveira, M. and Wiercigroch, M. 2009 7<sup>th</sup> International Conference on Modern Practice in Stress and Vibration, 8 10 September 2009, Cambridge, UK. *Journal of Physics: Conference Series* **181**, 012056 (8 pages). Low dimensional models for stick-slip vibration of drill-strings.

- 270. Srinil, N., <u>Wiercigroch, M.</u>, O'Brien, P. and Younger, R., 2009 In *Proc. of the 28th International Conference on Ocean, Offshore and Arctic Engineering (OMAE 2009)*, Honolulu, OMAE2009-79166.Vortex-Induced Vibration of catenary riser: Reduced-order modelling and lock-in analysis using wake oscillator.
- 271. Srinil, N., <u>Wiercigroch, M.</u> and O'Brien, P. In *Proc. of the 19 International Offshore (Ocean) and Polar Engineering (ISOPE 2009)*, Osaka, 1329-1336. Nonlinear multi-mode interactions in subsea risers undergoing Vortex-Induced Vibrations
- 272. Srinil, N., <u>Wiercigroch, M.</u>, O'Brien, P. and Lane, M. 2008 In *Proc. 8th ISOPE Pacific/Asia Offshore Mechanics Symposium, 10 13 November 2008, Bangkok, Thailand,* 129-136. New model for vortex-induced vibration of catenary riser.
- 273. Wiercigroch, M. 2008 In *Proc. Euromech Colloquium 498: Nonlinear Dynamics of Composite and Smart Structures, 21 24 May 2008, Kazimierz Dolny, Poland* (eds J. Warminski, M.P. Cartmell and J Latalski), 53 58. Nonlinear dynamics for engineering design.
- 274. Syta, A., Litak, G. and Wiercigroch, M. 2008 In *Proc. Euromech Colloquium 498: Nonlinear Dynamics of Composite and Smart Structures, 21 24 May 2008, Kazimierz Dolny, Poland* (eds J Warminski, MP Cartmell and J Latalski), 321 325. Nonlinear cutting process by 0-1 test.
- 275. Ing, J., Pavlovskaia, E. and <u>Wiercigroch, M.</u> 2008 *Journal of Physics: Conference Series* **96**, 012119 (7 pages). An experimental study into the bilinear oscillator close to grazing.
- 276. Cao, Q., Wiercigroch, M., Pavlovskaia, E., Grebogi, C. and Thompson, J.M.T. 2008 *Journal of Physics: Conference Series* **96**, 012064 (6 pages). The SD oscillator and its attractors.
- 277. Keber, M. and Wiercigroch, M. 2007 In *Proc. Euromech Colloquium 483: Geometrically Nonlinear Vibration of Structures, 9 11 July 2007, Porto, Portugal* (eds P Ribeiro and M Amabili), 193-195. Analysis of a vertical offshore riser with weak geometrical nonlinearity excited by currents.
- 278. Mazzilli, C.E.N., Sanches, C.T., Baracho Neto, O.G.P., Wiercigroch, M. and Keber, M. 2007 In *Proc. Euromech Colloquium 483: Geometrically Nonlinear Vibration of Structures, 9 11 July 2007, Porto, Portugal* (eds P Ribeiro and M Amabili), 109-112. Non-linear modes of beams subject to moving axial loads.
- 279. <u>Wiercigroch, M.</u>, Cao, Q., Pavlovskaia, E., Grebogi, C. and Thompson, J.M.T. 2007 In *Proc. 21<sup>st</sup> Canadian Congress of Applied Mechanics*, 3-7 June 2007, Toronto, Canada (eds G Kawall, S Yu and D Naylor), Ryerson University, 205-206. SD oscillator to study transitions from smooth to discontinuous dynamics.
- 280. Bodai, T., <u>Wiercigroch, M.</u> and Fenwick, A.J. 2007 In *Proc. 21<sup>st</sup> Canadian Congress of Applied Mechanics, 3-*7 June 2007, Toronto, Canada (eds G Kawall, S Yu and D Naylor), Ryerson University, 213-214. Ray dynamics for background sound speed profiles with transitions.
- 281. Ing, J., Pavlovskaia, E., <u>Wiercigroch, M.</u> In *Proc. CDROM 5<sup>th</sup> European Nonlinear Oscillations Conference,* 7 12 August, 2005, Eindhoven, The Netherlands (ed Dick van Campen), (9 pages). Applied nonlinear dynamics of non-smooth mechanical systems.
- 282. Wiercigroch, M. In 'XI DINAME' Proc. CDROM 11<sup>th</sup> International Symposium on Dynamic Problems in Mechanics, 28 February 4 March, 2005, Ouro Preto, MG, Brazil (eds D.A. Rade, and V. Steffen Jr.), ABCM Press (10 pages). Applied nonlinear dynamics of non-smooth mechanical systems.
- 283. Pavlovskaia, E.E. and Wiercigroch, M. In 'Computational Mechanics' Proc. 6<sup>th</sup> World Congress on Computational Mechanics, 5 10 September, 2004, Beijing, China (eds Yao, Z.H., Yuang, M.W. and Zhong, W.X.), Thinghua University Press Springer Verlag, 541 546. Computation of periodic solutions for piecewise oscillators.
- 284. Xu, X. and Wiercigroch, M. In 'Computational Mechanics' Proc. CDROM 6<sup>th</sup> World Congress on Computational Mechanics, September 5 10, 2004, Beijing, China (eds Yao, Z.H., Yuang, M.W. and Zhong, W.X.), Thinghua University Press Springer Verlag, Paper M-92 (10 pages). Computation of rotating orbits of parametrically excited pendulum.
- 285. <u>Wiercigroch, M.</u> and Pavlovskaia, E.E. 2003 *Proc.* 5<sup>th</sup> International Conference on Modern Trends in Stress and Vibration Analysis, 9-11 September 2003, Glasgow, UK, 513-520. Nonlinear dynamics of vibro-impact systems: Theory and experiments.
- 286. Karpenko, E.V., <u>Wiercigroch, M.</u> and Neilson, R.D. 2003 *Proc. 2<sup>nd</sup> International Symposium on Stability Control of Rotating Machinery*, 4-8 August 2003, Gdansk, Poland, 341-352. Experimental verification of piecewise nonlinear Jeffcott rotor model with preloaded snubber ring.
- 287. Foong, C-H., <u>Wiercigroch, M.</u> and Deans, W.F. 2002 *IV International Conference on Fatigue Damage of Structural Materials*, 23-27 September 2002, Hyannis, MA, US. Nonlinear dynamics and fatigue.
- 288. Wojewoda, J., Stefanski, A. and Wiercigroch, M. 2002 *Proc. 5<sup>th</sup> International Conference on Vibration Engineering*, 18-20 September 2002, Nanjing, China, 594-500. A novel model of dry friction: Experimental and theoretical studies.

- 289. Karpenko, E., Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2002 *XXX Summer School "Advanced Problems in Mechanics"*, 27 June 6 July 2002, St.-Petersburg, Russia. Theoretical studies of Jeffcott rotor.
- 290. Karpenko, E.V., <u>Wiercigroch, M.</u> and Cartmell, M.P. 2001 *Proc. V International Conference on 'Vibrational Machines and Technologies'*, 7-11 May 2001, Kursk, Russia, 201-212. Chaotic dynamics of a discontinuously nonlinear rotor system.
- 291. Wiercigroch, M. 2001 *Proc. EuroConference on Computational Mechanics and Engineering Practice 'COMEP'*, 19-21 September 2001, Szczyrk, Poland, 63-83. Theoretical and experimental studies of dynamical systems with motion dependent discontinuities.
- 292. Woo, K-C., Rodger, A.A., Neilson, R.D., and <u>Wiercigroch, M.</u> 2001 *ASME Design Engineering Technical Conferences, 18<sup>th</sup> Biennial Symposium on Vibration and Noise,* 12-15 September 2001, Pittsburgh, US. Application of HB method to periodic responses of a vibro-impact moling system. Paper DETC2001/VIB-21453.
- 293. Krivtsov, A.M. and <u>Wiercigroch, M.</u> 2001 *Proc. XXIX Summer School "Advanced Problems in Mechanics"*, 20-30 June 2001, St.-Petersburg, Russia. Impact fracture in polycrystalline materials via particle dynamics simulation.
- 294. Pavlovskaia, E.E. and <u>Wiercigroch, M.</u> 2001 *Proc. XXIX Summer School "Advanced Problems in Mechanics"*, 20-30 June 2001, St.-Petersburg, Russia. Dynamics of a system with a frictional slider.
- 295. Foong, C-H., <u>Wiercigroch, M.</u> and Deans, W.F. 2001 *Proc. XXIX Summer School "Advanced Problems in Mechanics"*, 20-30 June 2001, St.-Petersburg, Russia. An experimental rig to study a fatigue crack growth under the influence of aperiodic loading.
- 296. Foong, C.H., <u>Wiercigroch, M.</u> and Deans, WF. 2000 *Proc. 5<sup>th</sup> Motion and Vibration Control Control, 4-8 December 2000, Sydney, Australia*. Dynamics and fatigue: A new approach. Paper No 2085.
- 297. <u>Wiercigroch, M.</u> and Krivtsov, A.M. 2000 *Proc. 3<sup>rd</sup> Int Sym "Nonlinear Dynamics in Production Engineering",* 26-27 Sept 2000, Cottbus. Nonlinear dynamics in orthogonal metal cutting.
- 298. Krivtsov, A.M. and Wiercigroch, M. 2000 *Proc. XXVIII Summer School "Actual Problems in Mechanics"*, 1-10 June 2000, St.-Petersburg, Russia, Vol. 1, 71-78. Mechanical properties of polycrystal materials, particle dynamics simulation.
- 299. <u>Wiercigroch, M.</u> and Krivtsov, A.M. 2000 *Proc. XXVIII Summer School "Actual Problems in Mechanics"*, 1-10 June 2000, St.-Petersburg, Russia, Vol. 2, 257-266. Dry friction and chatter in orthogonal metal cutting.
- 300. Foong, C-H., <u>Wiercigroch, M.</u> and Deans, W.F. 1999 *Proc. ASME Design Engineering Technical Conferences,* 12-15 September 1999, Las Vegas, US. Experimental study of nonlinear dynamics of orthogonal metal cutting. Paper DEC99/VIB-8028.
- 301. Krivtsov, A.M. and Wiercigroch, M. 1999 *Proc. ASME Design Engineering Technical Conferences,* 12-15 September 1999, Las Vegas, US. Nonlinear dynamics of percussive drilling of hard materials. Paper DEC99/VIB-8033.
- 302. Rodkina A. and <u>Wiercigroch, M.</u> 1999 *Proc. ASME Design Engineering Technical Conferences,* 12-15 September 1999, Las Vegas, US. Stability analysis of finite difference model of orthogonal metal cutting in presence of random noises. Paper DEC99/VIB-8040.
- 303. <u>Wiercigroch, M.</u> and Zhilin, P.A. 1999 *Proc. XXVII Summer School "Nonlinear Oscillations in Mechanical Systems"*, 1-8 September 1999, St. Petersburg, Russia, 1-22. On Painleve paradoxes.
- 304. Rodkina A. and Wiercigroch, M. 1999 European Control Conference ECC'99, 31 August 3 September 1999, Karsruhe, Germany. On stability of cutting processes in presence of random noises (paper F 1027-3).
- 305. Krivtsov, A.M. and <u>Wiercigroch, M.</u> 1999 *Proc. XXVII Summer School "Nonlinear Oscillations in Mechanical Systems"*, 1-8 September, St.-Petersburg, Russia, 37-49. Dynamic model of percussive drilling.
- 306. <u>Wiercigroch, M.</u>, Krivtsov, A.M. and Wojewoda, J. 1999 *Proc. XXVII Summer School "Nonlinear Oscillations in Mechanical Systems"*, 1-8 September, St.-Petersburg, Russia, 23-36. Nonlinear dynamics of intermittent cutting processes: Theory and applications.
- 307. Wiercigroch, M., Neilson, R.D. and Player, M.A. 1999 *Proc. IV International Conference on 'Vibrational Machines and Technologies'*, 4-7 December 1999, Kursk, Rusia, 19-26. Material removal rate prediction for ultrasonic drilling of hard materials using impact oscillators approach.
- 308. <u>Wiercigroch, M.</u>, Ho, T.M.D. and MacConnell, P.F. 1998 *Proc. MOVIC' 98 International Conference on Vibration and Control, August 25-28, 1998, Zurich Switzerland*. Vibration control of strongly nonlinear mechanical systems via electrorhelogical damper.
- 309. <u>Wiercigroch, M.</u> and Sin, V.T.W. In *Proc. International Symposium on Impact and Friction of Solids, Structures and Intelligent Machines,* June 27-30, 1998, Ottawa, Ontario (ed. Guran, A.), Word Scientific 1998, 135-140. Experimental non-smooth and non-reversible friction oscillator.

- 310. Warminski, J. Litak, G., Lipski, J., <u>Wiercigroch, M.</u> and Cartmell, M.P. 1998 *Proc. Symposium on Crack Mechanics and Material Cutting*, 22-24 October 1998, Kazimierz Dolny (Poland), 59-68. Regular and chaotic vibration in finish metal cutting (in Polish).
- 311. Sin, V.T.W. and <u>Wiercigroch, M.</u> 1996 *Proc. EuroMech 2nd European Nonlinear Oscillations Conference,* Prague '96, Vol. 2, 227-230. Experimental and numerical study of a symmetrical linear oscillator.
- 312. Lok, H.P. and <u>Wiercigroch, M.</u> 1996 *Proc. EuroMech 2nd European Nonlinear Oscillations Conference*, Prague '96, Vol. 2, 121-124. Modelling discontinuities in mechanical systems.
- 313. <u>Wiercigroch, M.</u>, Badiey, M., Simmen, J. and Cheng, A.H-D. 1995 *Proc. ASME, DE-Vol. 84-2, Design Engineering Technical Conferences, Vol. 3-Part B,* 355-360. Bifurcation and stability analysis of parabolic ray equation for acoustic wave propagation in underwater sound channel.
- 314. <u>Wiercigroch, M.</u> and Cheng, A.H.D. 1995 *Canadian Congress of Applied Mechanics, Vol. 1*, 398-401. On random vibration of intermittent orthogonal metal cutting.
- 315. Wiercigroch, M. 1993 *Proc. Int. Conf. "Achievements in Mechanical and Material Engineering Gliwice '93"* (Poland), 103-112. Chaotic vibration caused by non-linear machine tool-cutting processes.
- 316. Wiercigroch, M. and Kosmol, J. 1993 *Proc. Int. Conf. "Experimental Methods in Design and Exploitation of Heavy Duty Machines"*, Wroclaw (Poland), 101-106. Experimental study of statics and dynamics of heavy duty machine tools.
- 317. Wiercigroch, M. 1992 *Proc. Int. Conf. "Achievements in Mechanical and Material Engineering '92"*, Gliwice (Poland), 25-34. Complex dynamic model of machine tool cutting process system.
- 318. Tyrlik, T. and <u>Wiercigroch, M.</u> 1990 *Proc. Int. Conf. "Flexible Automation"*, Bratislava (Slovak Republic), 21-26. Static and dynamic analysis of the cutting process by computer means.
- 319. Tyrlik, T. and <u>Wiercigroch, M.</u> 1989 Proc. *Int. Symp. "Modelling in Mechanics"*, Wisla (Poland), 154-159. Static stiffness coefficients of heavy duty machine tools (in Polish).
- 320. Bliznicki, E., <u>Wiercigroch, M.</u> and Kalnik, M. 1989. *Proc. Nat. Conf. on Machines and Mechanisms*, Bielsko-Biala (Poland), 33-41. Mathematical modelling and numerical analysis of turning with servo copying mechanism (in Polish).
- 321. Tyrlik, T., Kosmol, J., <u>Wiercigroch, M.</u> and Tytkowski, K. 1989 *Proc. Int. Conf. MASAD '89*, Wroclaw (Poland), 405-409. CAD of bevel gears for application of OERLIKON Spiromatic 2 method (in Polish).
- 322. Wiercigroch, M. 1989 *Proc. Int. Conf. MASAD '89*, Wroclaw (Poland), 418-422. DAMT&CP computational package for dynamic analysis (in Polish).
- 323. Tyrlik, T. Kosmol, J., <u>Wiercigroch, M.</u> and Tytkowski, K. 1989 *Proc. Nat. Conf. Computer Methods in Mechanics '89*, Warsaw, 194-201. SPIR-IBM package for calculating geometry and technology of bevel gears (in Polish).
- 324. <u>Wiercigroch, M.</u> and Tytkowski, K. 1988 *Int. Symp. "Modelling in Mechanics"*, Wisla (Poland), 599-608. On matrix form of cutting process characteristics.
- 325. Wiercigroch, M. 1988 *Int. Symp. "Modelling in Mechanics",* Wisla (Poland), 591-598. Numerical simulation of dynamic rough hole boring process.
- 326. Bliznicki, E. and <u>Wiercigroch, M.</u> 1988 *Int. Symp. "Modelling in Mechanics"*, Wisla (Poland), 27-34. Mathematical modelling and numerical analysis of rope mining unit dynamics (in Polish).
- 327. Wiercigroch, M. and Tyrlik, T. 1988 *Int. Conf. CAD-CAM-CIM*, Wroclaw (Poland), 247-252. Numerical simulation of rough holeboring process on horizontal boring machines (in Polish).
- 328. Wiercigroch, M. 1987 *Int. Symp. "Modelling in Mechanics"*, Kudowa (Poland) , 407-414. On mathematical modeling of dynamic rough holeboring process (in Polish).
- 329. <u>Wiercigroch, M.</u> and Bliznicki, E. 1987 *Int. Symp. "Modelling in Mechanics"*, Kudowa (Poland), 415-422. Dynamic model of the turning process with servo copying mechanism (in Polish).
- 330. Kosmol, J. and <u>Wiercigroch, M.</u> 1986 *Int. Symp. "Modelling in Mechanics"*, Kudowa (Poland), 207-214. Numerical simulation of quasi dynamic cutting process. On mathematical modelling of dynamic rough holeboring process (in Polish).

# Monographs/Edited Volumes/Special Issues

- 331. Feigin, M. and <u>Wiercigroch, M.</u> (in preparation) *Dynamics of Discontinuous Systems: Modelling, Analysis and Experiments.* Springer-Verlag (~350p.)
- 332. Beno, J. and Wiercigroch, M. (in preparation) Theory of Metal Cutting. Springer-Verlag (~500p.)
- 333. Slavič, J. Boltežar, M. and <u>Wiercigroch, M.</u> eds 2017 International Conference on Engineering Vibration 2015. A special issue of *International Journal of Mechanical Sciences* **127**.

- 334. <u>Wiercigroch, M.</u> and Wang, B. eds 2015 Mechanics of Solids and Structures. A special issue of *International Journal of Mechanical Sciences* **91**.
- 335. <u>Wiercigroch, M.</u> and Pavlovskaia, E. eds 2015 Nonlinear Dynamics in Engineering: Modelling, Analysis and Applications. A special issue of *International Journal of Non-linear Mechanics* **70**.
- 336. <u>Wiercigroch, M.</u> and Rega, G. eds 2013 Proc of IUTAM Symposium on *Nonlinear Dynamics for Avanced Technologies and Engineering Design*. Springer-Verlag (454p.)
- 337. Lu, Q., Chen, L. and Wiercigroch, M. eds 2012 International Journal of Bifurcation and Chaos 22(5).
- 338. Warminski, J., Lenci, S., Cartmell, M.P, Rega, G. and <u>Wiercigroch, M.</u> eds 2011 *Nonlinear Dynamic Phenomena in Mechanics. Solid Mechanics and Its Applications* Vol. **178**. Springer-Verlag (280p.)
- 339. Warminski, J. and <u>Wiercigroch, M.</u> eds 2010 Dynamics, control and design of nonlinear systems with smart structures. A special issue of *International Journal of Non-linear Mechanics* **45**(9).
- 340. Lu, Q. and <u>Wiercigroch, M.</u> eds 2010 Nonlinear Dynamics of Biological Systems. A special issue of *International Journal of Nonlinear Mechanics* **45**(6).
- 341. <u>Wiercigroch, M.</u> ed. 2008 Experimental Nonlinear Dynamics I. Solids. A special issue of *Philosophical Transactions of the Royal Society Part A 366.*
- 342. <u>Wiercigroch, M. ed.</u> 2008 Experimental Nonlinear Dynamics II. Fluids. A special issue of *Philosophical Transactions of the Royal Society Part A 366.*
- 343. <u>Wiercigroch, M.</u> and Pavlovskaia, E.E. eds 2008 Nonlinear Dynamics of Engineering Systems. A special issue of *International Journal of Non-linear Mechanics* **43**(6).
- 344. Collins, M. and <u>Wiercigroch, M.</u> eds 2006 Chaos in Engineering. A special issue of the *Proceedings of Institution of Mechanical Engineers Part C* **220**.
- 345. Fenwick, A.J., <u>Wiercigroch, M.</u>, and Champneys, A.R. eds 2005 Bifurcations in Engineering Systems. A special issue of *IMA Journal of Applied Mathematics* **70**.
- 346. Boltezar, M., <u>Wiercigroch, M.</u> and Indeitsev, D.A. eds 2006 Advanced Problems in Mechanics. A special issue of *Meccanica* **41**(3).
- 347. <u>Wiercigroch, M.</u>, Kreuzer, E. and Kapitaniak, T. eds 2003 Nonlinear Dynamics of Engineering Systems and Structures. A special issue of *Meccanica* **38**(1).
- 348. <u>Wiercigroch, M.</u> and Rodger, A.A. eds 2003 Condition Monitoring of Engineering Systems and Structures. A special issue of *Meccanica* **38**(2).
- 349. <u>Wiercigroch, M.</u> ed. 2001 Nonlinear Dynamics in Metal Cutting. A theme volume of the *Philosophical Transactions of the Royal Society of London: Part A* **359**(1781).
- 350. Kapitaniak, T. and <u>Wiercigroch, M.</u> eds 2000 *Dynamics of Impact Oscillators*. A special issue of Chaos, Solitons and Fractals **11**(15).
- 351. <u>Wiercigroch, M.</u> and de Kraker, B. eds 2000 *Applied Nonlinear Dynamics and Chaos of Mechanical Systems with Discontinuities. Nonlinear Science Series A* Vol. **28**. Singapore: World Scientific. (459 p.)
- 352. <u>Wiercigroch, M.</u> 1994 *Dynamics of Discrete Mechanical Systems with Discontinuities*. Gliwice: Silesian University Press. (127 p., in Polish)

#### **Patents**

- 353. Wiercigroch, M., Kapitaniak, M., Vaziri, V., Yari, N. 2016 Mechanical Exciter for Resonance Enhanced Drilling (filed).
- 354. Wiercigroch, M. 2015 Control of Resonance Enhanced Drilling (filed).
- 355. Wiercigroch, M. 2014 Steering of Resonance Enhanced Drilling (filed).
- 356. Wiercigroch, M. 2014 Test Apparatus. GB20130016664.
- 357. Wiercigroch, M. 2012 Vibration Transmission and Isolation. GB20110021013.
- 358. Wiercigroch, M. 2012 Resonance Enhanced Drill Test Rig. GB20110004677.
- 359. Wiercigroch, M. 2011 Resonance Enhanced Rotary Drilling Module. GB1102558.2
- 360. Wiercigroch, M. 2009 Resonance Enhanced Rotary Drilling. GB0916265.2
- 361. Wiercigroch, M. 2009 Resonance Enhanced Drilling: Method and Apparatus. EP2041389 (A1)
- 362. Wiercigroch, M. 2007 Resonance Enhanced Drilling: Method and Apparatus. WO2007141550.

### **Invited Seminars and Conference Presentations**

- 1. 38<sup>th</sup> Argentinian Congress of Computational Mechanics, Bahia Blanca, Argentina, 1 4 November 2022 (opening plenary lecture)
- 2. 1<sup>st</sup> International Conference on Mechanical Systems Dynamics, Nanjing, China, 24 27 August 2022 (keynote lecture)
- 3. 10th International Conference on Wave Mechanics and Vibrations, Lisbon, Portugal, 4 6 July 2022 (plenary lecture)
- 4. Peking University, Department of Engineering Mechanics, virtual seminar, 22 April 2022
- 5. Yanshan University, virtual seminar, 16 October 2020 (100 years anniversary lecture)
- 6. Perm Region International Projects, Perm, Russia, 22 November 2019 (keynote lecture)
- 7. Zhejiang University of Technology, Department of Mechanical Engineering, Hangzhou, China, 18 November 2019
- 8. Zhejiang University, Department of Engineering Mechanics, Hangzhou, China, 17 November 2019
- 9. 3<sup>rd</sup> International Workshop and Specialized Equipment and Engineering Mechanics, Nanjing, China, 13 15 November 2019 (plenary lecture)
- 10. Beijing University of Geosciences, Department of Petroleum Engineering, Beijing, China, 11 November 2019
- 11. XVI Latin American Workshop on Nonlinear Phenomena (LAWNP), La Paz, Bolivia, 22 26 October 2019 (keynote lecture)
- 12. Beihang University, Department of Solid Mechanics, Beijing, China, 29 July 2019
- 13. University of Electronic Science and Technology, Department of Aerospace Engineering, Chengdu, China, 27 July 2019
- 14. China University of Petroleum, Department of Petroleum Engineering, Qingdao, China, 23 July 2019
- 15. Beijing University of Science and Technology, Department of Mechanics, Beijing, China, 19 July 2019
- 16. 48<sup>th</sup> Summer School of Russian Academy of Sciences on Advanced Problems in Mechanics, St. Petersburg, Russia; 21 27 June 2019 (plenary lecture)
- 17. International Symposium on 'Dynamics Problems in Mechanics DINAME XVIII'; Buzios, Rio de Janeiro, Brazil, 10 15 Mach 2019 (keynote lecture)
- 18. The British University of Dubai, Department of Environmental Engineering, Dubai, UAE, 2 March 2019
- 19. 14th International Conference on Vibration Engineering and Technology Machinery, 10–13 September 2018, Lisbon, Portugal (plenary lecture)
- 20. Zhengzhou University, Department of Mathematics, Zhengzhou, China, 1 August 2018
- 21. Hong Kong University of Science and Technology, Department of Mechanical Engineering, Hong Kong, 29 July 2018
- 22. University of Inner Mongolia, Department of Mathematics, Hohhot, China, 25 July 2018
- 23. 8th National French *Conference on Energy Harvesting and Storage*, Besancon, France, 14-15 May 2018 (plenary lecture)
- 24. Department of Physics, Institute Balseiro, Bariloche, Argentina, 15 and 21 March 2018
- 25. Jadavpur University, Department of Mathematics, Kolkata, India, 7 December 2017
- 26. 5<sup>th</sup> International Conference on *Complex Dynamical Systems and Applications*, Guwahati, India, 4-6 December 2017 (keynote lecture)
- 27. Federal University of Rio de Janeiro, Department of Mechanical Engineering, Rio de Janeiro, Brazil, 14 July 2017
- 28. 45<sup>th</sup> Summer *School of Russian Academy of Sciences on Advanced Problems in Mechanics*, St. Petersburg, Russia; 22 27 June 2017 (opening lecture)
- 29. Yancheng Teachers University, Department of Mathematics, Yancheng, China, 30 April 2017
- 30. Jinan University, Department of Mathematics, Jinan, China, 28 April 2017
- 31. University of Inner Mongolia, Department of Mathematics, Hohhot, China, 25 April 2017
- 32. Pekin University, Department of Mechanics, Beijing, China, 20 April 2017
- 33. Tehran University, Department of Mechanical Engineering, Iran, 9 November 2016

#### Marian Wiercigroch - Curriculum Vitae & List of Publications

- 34. Research Institute of Petroleum Industry, Tehran, Iran, 8 November 2016
- 35. Shiraz University, Department of Mechanical Engineering, Iran, 5 November 2016
- 36. Isfahan University of Technology, Department of Mechanical Engineering, Iran, 2 November 2016
- 37. Xi'an Jiatong University, Department of Engineering Mechanics, China, 21 October 2016
- 38. IUTAM Symposium *on Nonlinear and Delayed Dynamics of Mechatronic Systems,* Nanjing, China, 17 21 October 2016.
- 39. Beijing Institute of Technology, Department of Aerospace, Beijing, China, 16 October 2016
- 40. BUAA University, Department of Dynamics and Control, China, 15 October 2016
- 41. Peking University, Department of Mechanics, Beijing, China, 14 October 2016
- 42. Tsinghua University, Department of Engineering Mechanics, Beijing, China, 13 October 2016
- 43. 24th International Congress of Theoretical and Applied Mechanics, Montreal, Canada, 21 26 August 2016
- 44. *13th International Workshop on Piezoelectric Materials and Applications in Actuators*, Jeju, South Korea, 21-24 August 2016
- 45. Korea University, Department of Mechanical Engineering, Seoul, South Korea, 19 August 2016
- 46. Korean Institute of Science and Technology, Seoul, South Korea, 18 August 2016
- 47. FEMTO-ST Institute, Department of Applied Mechanics, Besançon, France, 20 July 2016
- 48. 44<sup>th</sup> Summer School of Russian Academy of Sciences on Advanced Problems in Mechanics, St. Petersburg, Russia; 27 June 2 July 2016 (plenary lecture)
- 49. International Conference on Structural Nonlinear Dynamics and Diagnostics, 23 25 May 2016, Marrakech, Morocco (plenary lecture)
- 50. 9th Chaotic Modelling and Simulation International Conference, 23 26 May 2016, London, UK (opening lecture)
- 51. Bulgarian Academy of Sciences, Department of Mechanics, Sofia, Bulgaria, 26 April 2016
- 52. International Conference of Non-smooth Dynamics, Barcelona, Spain, 1 5 February 2016
- 53. Lodz University of Technology, Division of Dynamics, Lodz, Poland, 26 January 2016
- 54. Institute of Mechanical Engineering, Russian Academy of Sciences, St Petersburg, Russia, 15 October 2015
- 55. 5th Symposium *on the Mechanics of Slender Structures (MoSS2015)*, Northampton, UK, 21 26 September 2015 (keynote lecture)
- 56. 10<sup>th</sup> International Workshop on Energy Harvesting, Blacksburg, VA, USA, 13 16 September 2015 (keynote lecture)
- 57. *International Conference on Engineering Vibration*, Ljubljana, Slovenia, 7 10 September 2015 (plenary lecture)
- 58. Euromech Colloquium 562 on Stability and Control of Nonlinear Vibrating Systems, Sperlonga, Italy, 24 28 May 2015 (keynote lecture)
- 59. Villanova University, Department of Mechanical Engineering, Villanova, PA, US, 18 May 2015
- 60. Virginia Polytechnic University, Department of Mechanical Engineering, Blackburg, VA, US, 15 May 2015
- 61. Polytechnic University of Marche, Department of Civil Engineering and Architecture, Italy, 15 April 2015
- 62. Universidade do Estado do Amazonas, Department of Mechanical Engineering, Manaus, Brazil, 28 February 2015
- 63. University of Sheffield, Advanced Manufacturing Research Centre, Sheffield, UK, 10 February 2015
- 64. University College Dublin, Department of Mechanical and Material Engineering, Dublin, Ireland, 26 January 2015
- 65. Southwest Jiatong University, Department of Mechanics, Chengdu, China, 27 September 2014
- 66. 9th International Energy Harvesting Workshop, Suzhou, China, 22 25 September 2014 (plenary lecture)
- 67. International Workshop on Advances in Applied Nonlinear Mathematics, Bristol, UK, 18 19 September 2014 (plenary lecture)
- 68. Sichuan University, Department of Mathematics, Chengdu, China, 5 September 2014
- 69. Lanzhou Jiatong University, Department of Mechanical Engineering, Lanzhou, China, 1 September 2014
- 70. Shanghai Jiatong University, School of Mechanical Engineering, Shanghai, China, 29 August 2014
- 71. 9<sup>th</sup> International Conference on Dynamics, Vibration and Control, Shanghai, China, 22 25 August 2014 (keynote lecture)

- 72. Donghua University, Department of Mathematics and Computer Science, Shanghai, China, 21 August 2014*Brazilian Conference on Dynamics, Control and Applications (DINCON)*, Fortaleza, Brazil, 14 17 October 2013 (plenary lecture)
- 73. 11<sup>th</sup> International Conference on Vibration Problems, Lisbon, Portugal, 12 14 September 2013 (plenary lecture)
- 74. 6th International Conference on Nonlinear Mechanics (ICNM-VI), Shanghai, China, 12 15 August 2013
- 75. 4th International Nonlinear Dynamics Conference, Kharkov, Ukraine, 19 21 June 2013 (keynote lecture)
- 76. University of Sheffield, Department of Automatic Control and Systems Engineering, 17 April 2013
- 77. Federal University of Rio Grande, Department of Mechanical Engineering, Natal, Brazil, 27 February 2013
- 78. Petrobras, Rio de Janeiro, Brazil, 25 February 2013
- 79. International Symposium on 'Dynamics Problems in Mechanics DINAME XI'; Buzios, Rio de Janeiro, Brazil, 17 22 February 2013 (keynote lecture)
- 80. Keio University, Department of Mechanical Engineering, Japan, 5 November 2012
- 81. Harbin Institute of Technology, School of Aeronautics, China, 15 August 2012
- 82. Nanjing University of Aeronautics and Astronomics, Department of Mechanical Engineering, China, 25 August 2012
- 83. Xi'an Jiaotong University, Department of Mechanics, Xi'an, China, 27 August 2012
- 84. XXXX Summer School of Russian Academy of Sciences on *Advanced Problems in Mechanics*, St. Petersburg, Russia; 2 8 July 2012 (keynote lecture)
- 85. City University of Hong Kong, Department of Mechanical Engineering, Hong Kong, China; 2 March 2012
- 86. Hong Kong University, Department of Mechanical Engineering, Hong Kong, China; 28 February 2012
- 87. Tokyo University, Department of Mechanical Engineering, Tokyo, Japan; 5 December 2011
- 88. IUTAM Symposium on 50 Years of Chaos, Kyoto, Japan; 28 November 2 December 2011
- 89. Tongji University, Department of Applied Mechanics, Shanghai, China; 17 October 2011
- 90. Peking University, Department of Mechanics, Beijing, China; 18 October 2011
- 91. 2nd Harbin International Colloquium on Nonlinear Dynamics, HIT, Harbin, China; 14 15 October 2011 (keynote lecture)
- 92. 6th International Workshop on Piecewise-Smooth Dynamical Systems, Urbino, Italy, 21 23 September 2011 (keynote lecture)
- 93. International Symposium on Dynamics and Control, Hanoi, Vietnam, 19 21 September 2011 (opening lecture)
- 94. Thai Nguyen University of Technology, Department of Mechanical Engineering, Thai Nguyen, Vietnam, 18 September 2011
- 95. Ho Chi Minh City University of Science and Technology, Department of Mechanical Engineering, 15 September 2011
- 96. Hanoi University of Science and Technology, Department of Mechanics, 14 September 2011
- 97. 10<sup>th</sup> International Conference on Vibration Problems, Prague, Czech Republic, 5 8 September 2011 (keynote lecture)
- 98. INRIA, Grenoble, France, 5 July 2011
- 99. IMechE Aberdeen Branch, Aberdeen, 5 May 2011
- 100. Indian Institute of Technology Madras, Department of Mechanical Engineering, Chennai, India, 10 February 2011
- 101. Indian Institute of Technology Delhi, Department of Mechanical Engineering, Delhi, India, 9 February 2011
- 102. Oil and Gas Drilling and Completion Forum, Amsterdam, The Netherlands, 26 28 January 2011, Amsterdam, The Netherlands (keynote lecture)
- 103. University of Seville, Department of Physics, Seville, Spain, 19 October 2010
- 104. Complutense University of Madrid, Institute of Multidisciplinary Sciences, Madrid, Spain, 15 October 2010
- 105. 3rd International Nonlinear Dynamics Conference, Kharkov, Ukraine, 21 24 September 2010 (keynote lecture)
- 106. Dynamics Days Europe, Bristol, UK, 6 10 September 2010
- 107. Lublin University of Technology, Department of Applied Mechanics, Lublin, Poland, 13 August 2010
- 108. *IUTAM Symposium on Nonlinear Dynamics for Advanced Technologies and Engineering Design*, 27 30 July 2010, Aberdeen, UK (closing lecture)

#### Marian Wiercigroch - Curriculum Vitae & List of Publications

- 109. XXXVIII Summer School of Russian Academy of Sciences on *Advanced Problems in Mechanics*, St. Petersburg, Russia; 1 5 July 2010 (keynote lecture)
- 110. 3<sup>rd</sup> International Conference on *Dynamics, Vibration and Control ICDVC-2010*, Hangzhou, China, 12 14 May 2010 (keynote lecture)
- 111. Beijing Institute of Technology, Department of Mechanics, Beijing, China, 20 May 2010
- 112. X'ian Jiaotong University, Department of Mathematics, X'ian, China, 16 May 2010
- 113. 1st Harbin International Colloquium on Nonlinear Dynamics, HIT, China, 10 May 2010 (keynote lecture)
- 114. Beijing University of Aeronautics and Astronomics, School of Science, Beijing, China, 7 May 2010
- 115. DEA(e) Q110 Meeting, Aberdeen, 4 -5 March 2010
- 116. Schlumberger Cambridge Centre, Cambridge, 16 February 2010
- 117. Indian Institute of Technology Kanpur, Department of Mechanical Engineering, India, 5 February 2010
- 118. Indian Institute of Science Bangalore, Department of Civil Engineering, India, 2 February 2010
- 119. Indian Institute of Technology Kharagpur, Department of Mechanical Engineering, Kharagpur, India, 8 February 2010
- 120. Indian Institute of Science, Education and Research Kolkata, Nadia, India, 4 February 2010
- 121. TU Delft, Department of Civil and Environmental Engineering, 8 December 2009
- 122. 2<sup>nd</sup> International Conference on *'Recent Advanced in Nonlinear Mechanics'*, Kuala Lumpur, Malaysia, 24 27 August 2009 (keynote lecture)
- 123. XXXVII Summer School of Russian Academy of Sciences on *Advanced Problems in Mechanics*, St. Petersburg, Russia; 30 June 5 July 2009 (keynote lecture)
- 124. UHI Millennium Institute, 18 May 2009
- 125. Brunel University, Department of Mathematics, 20 April 2009
- 126. Colloquium on Nonlinear Dynamics of Deep Drilling Systems, Liege, Belgium, 12 13 February 2009
- 127. University of Bristol, Department of Engineering Mathematics, Bristol, 27 February 2009
- 128. 9<sup>th</sup> International Conference on Vibration Problems, Kharagpur, India, 19 22 January 2009 (keynote lecture)
- 129. Drilling Technology Workshop, Santiago, Chile, 16 18 November 2008
- 130. Dynamics Days Asia Pacific 5, Nara, Japan, 9 12 September 2008
- 131. RIKEN Institute, Tokyo, Japan, 8 September 2008
- 132. University of Nottingham Malaysia Campus, Faculty of Engineering and Computing Science, Kuala Lumpur, Malaysia, 5 September 2008
- 133. 22<sup>nd</sup> International Congress of Theoretical and Applied Mechanics, *Chaos in Fuids and Solid Mechanics Session*, Adelaide, Australia, 24 30 August 2008
- 134. Euromech 498: Nonlinear Dynamics of Composite and Smart Structures, Kazimierz Dolny, Poland, 21 24 May 2008 (keynote lecture)
- 135. University of East Anglia, Department of Mathematics, 3 March 2008
- 136. IMechE Aberdeen Branch, 31 October 2007
- 137. University of Sao Paulo, Department of Mechanical Engineering, Sao Paulo, Brazil, 12 November 2007
- 138. 19<sup>th</sup> International Congress of Mechanical Engineers COBEM2007, Brasilia, Brazil, 5 9 November 2007 (keynote lecture)
- 139. 2<sup>nd</sup> International Nonlinear Dynamics Conference, Kharkov, Ukraine, 24 28 September 2007 (keynote lecture)
- 140. TU Lublin, Department of Applied Mechanics, Poland; 3 September 2007
- 141. 1st Congress of Polish Mechanics, Warsaw, Poland, 29 31 August 2007
- 142. University of Marche, Department of Civil and Structural Engineering, Ancona, Italy, 10 August 2007
- 143. University of Rome 'La Sapienza', Department of Structural & Geotechnical Engineering, Rome, Italy, 31 July 2007
- 144. Ryerson University, Department of Mechanical & Industrial Engineering, Toronto, Ontario, Canada, 8 June 2007
- 145. International Islamic University of Malaysia, Faculty of Engineering, Kuala Lumpur, Malaysia, 23 May 2007

#### Marian Wiercigroch – Curriculum Vitae & List of Publications

- 146. University of Nottingham Malaysia Campus, Faculty of Engineering and Computing Science, Kuala Lumpur, Malaysia, 22 May 2007
- 147. Rice University, Department of Civil & Environmental Engineering, Houston, TX, US, 30 April 2007
- 148. University of Mississippi, Department of Civil & Environmental Engineering, Oxford, MS, US, 27 April 2007
- 149. Imperial College London, Department of Aeronautics, London, 18 April 2007
- 150. British Applied Mathematics Colloquium, Bristol, 17 19 April 2007
- 151. Kyoto University, Department of Physics, Japan, 30 March 2007
- 152. Kyoto University, Department of Electrical Engineering, Japan, 31 March 2007
- 153. *IUTAM Symposium on Dynamics and Control of Nonlinear Systems with Uncertainty,* Nanjing, China; 18 23 September 2006
- 154. Beijing University of Aeronautics and Astronomics, School of Science, China; 31 August 2006
- 155. 2<sup>nd</sup> International Conference on Dynamics, Vibration and Control ICDVC-2006, Beijing (China), 23 26 August 2006 (plenary lecture)
- 156. Experimental Chaos, Sao Paulo, Brazil; 18 23 July 2006 (keynote lecture)
- 157. XXXIIII Summer School of Russian Academy of Sciences on *Advanced Problems in Mechanics*, St. Petersburg, Russia; 25 June 1 July 2006 (plenary lecture)
- 158. Division of Petroleum Engineering, CSIRO, Perth, WA, 28 April 2006
- 159. Drilling Roadmap Workshop, Fremantle near Perth, WA, Australia; 26 27 April 2006
- 160. TU Lublin, Department of Applied Mechanics, Poland; 6 and 13 April 2006
- 161. 18<sup>th</sup> International Congress in Mechanical Engineering COBEM2005, Ouro Preto, MG, Brazil, 6 11 November 2005 (keynote lecture)
- 162. *Drilling Workshop*, Memorial University of Newfoundland, St. John's, NL, Canada, 22 23 August 2005 (keynote lecture)
- 163. TU Delft, Department of Civil Engineering, Delft, The Netherlands, 31 May 2005
- 164. World Renewable Energy Congress, 22 27 May 2005 Aberdeen
- 165. 13<sup>th</sup> *Annual Conference of Computational Mechanics in Engineering*, Sheffield, 21 22 March 2005 (keynote lecture)
- 166. University Ljubljana, Department of Mechanical Engineering, Slovenia, 4 April 2005
- 167. PUC (Catholic University), Department of Civil Engineering, Rio de Janeiro, Brazil, 7 March 2005
- 168. International Symposium on 'Dynamics Problems in Mechanics DINAME XI'; Ouro Preto, MG, Brazil, 28 February 4 March 2005 (keynote lecture)
- 169. University of Sao Paulo, Department of Civil Engineering, Sao Paulo, Brazil, 25 February 2005
- 170. Workshop on 'Pseudospectra in Structural Dynamics', Bristol, 13 15 December 2004
- 171. International Workshop on 'Piecewise Smooth Dynamical Systems: Analysis, Numerics and Applications', Bristol, 13 17 September 2004
- 172. University of Marche, Department of Civil and Structural Engineering, Ancona, Italy, 29 August 2004
- 173. 21<sup>st</sup> International Congress of Theoretical and Applied Mechanics, Structural Vibration Session, Warsaw, Poland, 15 21 August 2004
- 174. XXXII Summer School of Russian Academy of Sciences on *Advanced Problems in Mechanics*, St. Petersburg, Russia; 24 June 1 July 2004 (plenary lecture
- 175. University of Exeter, School of Mathematics, Exeter, 6 October 2003
- 176. International Conference on *'Bifurcations: The Use of Chaos and Control'*, Southampton, 28 30 July 2003 (keynote lecture)
- 177. XXXI Summer School of Russian Academy of Sciences on *Advanced Problems in Mechanics*, St. Petersburg, Russia; 23 June 2 July 2003 (keynote lecture)
- 178. IUTAM Symposium on Chaotic Dynamics of Systems and Processes in Mechanics, Rome, Italy; 9 13 June 2003
- 179. *Modern Trends in Theoretical and Applied Mechanics,* University College London, London, UK; 23 24 April 2003

#### Marian Wiercigroch – Curriculum Vitae & List of Publications

- 180. 4th International Symposium on *Investigations of Nonlinear Effects in Production Systems*, Cottbus, Germany, 8 9 April 2003 (keynote lecture)
- 181. University of Huddersfield, School of Computing and Engineering, Huddersfield, 25 February 2003
- 182. Strathclyde University, Department of Mathematics Seminars Series, Glasgow, UK; 19 February 2003
- 183. Department of Engineering Mathematics, Bristol University, BLADE Seminars Series, Bristol, UK; 20 November
- 184. V World Congress on Computational Mechanics, Vienna, Austria; 7-12 July 2002
- 185. Strathclyde University, Department of Mechanical Engineering, Glasgow, UK; 19 April 2002
- 186. Lancaster University, Department of Physics, Lancaster, UK; 12 October 2000
- 187. University of British Columbia, Department of Mechanical Engineering, Vancouver, Canada, 13 August 2001
- 188. EuroConference on Computational Mechanics and Engineering Practice, Szczyrk, Poland; 19-21 September 2001 (keynote lecture)
- 189. COST P4 Conference on Nonlinear Dynamics in Mechanical Processing, Wroclaw, Poland; 17 September 2001
- 190. ASME Design Engineering Technical Conferences, 18<sup>th</sup> Biennial Symposium on Vibration and Noise, Pittsburgh, US, 12-15 September 2001
- 191. 5<sup>th</sup> Motion and Vibration Control Conference, Sydney, Australia, 4-8 December 2000
- 192. 3<sup>rd</sup> International Symposium on Nonlinear Dynamics in Production Engineering, Cottbus, Germany; 26-27 September 2000
- 193. Russian Academy of Sciences, St. Petersburg, Russia, 25 June 2000
- 194. IV International Conference on Vibrational Machines and Technologies, Kursk, Russia, 4-7 December 1999
- 195. COST P4 Conference on Nonlinear Dynamics in Mechanical Processing, Budapest, Hungary, 12 November 1999
- 196. Russian Academy of Sciences, St. Petersburg, Russia, 12 August 1999
- 197. *IUTAM Symposium on Recent Developments in Non-Linear Oscillations of Mechanical Engineering,* Hanoi, Vietnam; 2-5 March 1999
- 198. Technical University of Lublin, Department of Applied Mechanics, Lublin, Poland; 14 December 1998
- 199. International Symposium on Impact and Friction of Solids, Structures and Intelligent Machines, Ottawa, Ontario, Canada; 27-30 June 1998
- 200. IUTAM/IFToMM Symposium: Synthesis of Nonlinear Dynamical Systems, Riga, Latvia; 24 August 1998
- 201. Glasgow University, Department of Mechanical Engineering, Glasgow, UK; 27 September 1998
- 202. IUTAM Symposium on New Applications of Nonlinear and Chaotic Dynamics in Mechanics, Cornell University, Ithaca, US; 31 July 2 August, 1997
- 203. Eindhoven University of Technology, Department of Engineering Dynamics, The Netherlands; 25 June 1997
- 204. Oakland University, School of Engineering and Computer Sciences, Rochester Hills, Michigan, US, 11 January
- 205. Wayne State University, Department of Mechanical Engineering, Detroit, Michigan, US; 9 January 1996
- 206. Michigan State University, Department of Mechanical Engineering, East Lansing, Michigan, US; 7 January
- 207. University of Delaware, College of Marine Studies and Department of Civil Engineering, Newark, Delaware, US; 26 October 1995
- 208. University of Delaware, Department of Civil Engineering, Newark, Delaware, US; 19 September 1994

I hereby declare that all the above information given in this document is true to the best of my knowledge.