



<b>Day 1 – Monday 8 December 2025</b>		
Venue: AI Arena, South West Institute of Technology, North Park Road, Streatham Campus		
08:30 – 09:00	 Registration & Welcome Coffee	
09:00 – 09:10	Opening Remarks	Yang Liu, Krasimira Tsaneva-Atanasova, & Peter Ashwin
Opening Keynote (Chair: Yang Liu)		
09:10 – 09:55	Grazing Induced Bifurcations: Innocent or Sinister?	Marian Wiercigroch
Session 1 (Chair: Jie Yuan)		
09:55 – 10:15	Improving the Harmonic Balance Method for Accurate and Efficient Analysis of Non-Smooth Dynamical Systems	Loïc Salles
10:15 – 10:35	Topology Optimisation for Non-Smooth Dynamics: An Approach Based on MMC and Surrogate Modelling-Based Optimisation	Enora Denimal Goy
10:35 – 10:55	Robust Underplatform Damper Design for Resilient Turbine Operation	Chiara Gastaldi
10:55 – 11:15	 Coffee Break	
Session 2 (Chair: Jan Sieber)		
11:15 – 11:35	The Unexpected Sensitivity of Nonsmooth Events	Mike Jeffrey
11:35 – 11:55	Emergence of Relaxation Beat-Waves in Nonlinear Klein-Gordon Chains under Bi-Harmonic Parametric Excitation	Majdi Gzal
11:55 – 12:15	The Non-Smooth Generalized- $\alpha$ Scheme and its Application in Flexible Multibody Dynamics	Olivier Brüls
12:15 – 12:35	Is Excitation Harmonization Needed When Testing Non-Smooth Systems?	Seigan Hayashi
12:35 – 14:00	 Lunch Break (Venue: Upper Lounge, Reed Hall)	
Keynote (Chair: Petri Piiroinen)		
14:00 – 14:45	Some Nonsmooth Bifurcation Problems in Impacting Mechanical Systems	Alan Champneys

Session 3 (Chair: Daniil Yurchenko)		
14:45 – 15:05	<b>Synchronisation in Self-Excited Filippov Systems</b>	<b>Bipin Balaram</b>
15:05 – 15:25	Reduced Order Modeling of a Kicked Oscillator via Energy Closure Recovers its Bifurcation Structure	Joseph Cusumano
15:25 – 15:45	Dynamics of an Active Wave-Particle Entity in a Non-Smooth Potential	Rahil Valani
15:45 – 16:05	Bifurcation Analysis of a Filippov Predator-Prey Model with Double Discontinuity and Frequency-Switching Forcing	Dinesh Bandi
16:05 – 16:25	 Coffee Break	
Keynote (Chair: Piotr Kowalczyk)		
16:25 – 17:10	Transitions to Chaos for One-Dimensional Piecewise Smooth Maps	Paul Glendinning
Session 4 (Chair: Aasifa Rounak)		
17:10 – 17:30	Computation of Stable and Unstable 1D Sets of Saddles in PWS Maps: Towards Understanding of Discontinuous Invariant Curves	Viktor Avrutin
17:30 – 17:50	Computational Word-Based Dynamical Analysis for Multi-Dimensional Impacting Systems	Rachel Kuske
17:50 – 18:10	Robust Chaos in Piecewise-Linear Maps	Indranil Ghosh
19:00 – 21:00	 Networking Pub Evening (Venue: Conference Room, The Imperial – JD Wetherspoon, New North Road, Exeter, Devon, EX4 4AH)  <i>Please note: this is a self-funded social event. Participants are welcome to purchase their own drinks and food at the venue.</i>	

<b>Day 2 – Tuesday 9 December 2025</b>		
Venue: AI Arena, South West Institute of Technology, North Park Road, Streatham Campus		
08:00 – 08:30	 Morning Coffee & Networking	
Keynote (Chair: Aasifa Rounak)		
08:30 – 09:15	Applications of Non-Smooth Dynamics in Machine Learning	Chris Budd
Session 5 (Chair: Daniil Yurchenko)		
09:15 – 09:35	Frictional Damping in Turbomachinery – a Short Overview	Christoph Schwingshackl
09:35 – 09:55	Boosting the Inter-Modal Energy Scattering of Vibro-Impact Absorbers through Geometric Stiffening of the Contact Zone	Tobias Weidemann
09:55 – 10:15	Comparative Study of Tuned Mass Dampers and Nonlinear Energy Sinks for Vibration Control	Aasifa Rounak
10:15 – 10:35	 Coffee Break	
Keynote (Chair: Jie Yuan)		
10:35 – 11:20	Exploring the Non-Smooth Dynamics of Teams of Autonomous Vehicles and Humans	Bogdan Epureanu
Session 6 (Chair: Yang Liu)		
11:20 – 11:40	Effects of Non-Smooth Actuation on an SMA Structure Behaviour	Ekaterina Pavlovskaja
11:40 – 12:00	The Bouncing Ball Problem: Exploring Oblique Impacts	Daniil Yurchenko
12:00 – 12:20	Electronic Equivalent of the Mechanical Impact Oscillator	Volodymyr Denysenko
12:20 – 13:50	 Lunch Break & Group Photo (Venue: Upper Lounge, Reed Hall)	
Keynote (Chair: Evangelos Papatheou)		
13:50 – 14:35	Non-Smooth Dynamic Systems: Modelling, Observability and Identification	Manolis Chatzis

Session 7 (Chair: Petri Piironen)		
14:35 – 14:55	Robust Data-Driven Bayesian Framework for Nonlinear Whirl Flutter Identification	Jie Yuan
14:55 – 15:15	A Non-Smooth Model for the Lateral Dynamics of Drill Bits	Kaidong Chen
15:15 – 15:35	Uncertainty Quantification of Floating Offshore Wind Turbines with Non-Smooth Nonlinearities	Baiyang Shi
15:35 – 15:55	 Coffee Break	
Keynote (Chair: Yang Liu)		
15:55 – 16:40	Data-Driven Smooth Models of Non-Smooth Systems	George Haller
Session 8 (Chair: Piotr Kowalczyk)		
16:40 – 17:00	Constructing Affine Underestimators for Convex Nonsmooth ODEs	Kamil Khan
17:00 – 17:20	Grazing Bifurcation and Canard-Like Explosion in Neural Mass Models	Huda Mahdi
17:20 – 17:40	Switching as a Logic Problem, and its Conserved Quantities	Mike Jeffrey
19:00 – 22:00	 Gala Dinner (Venue: The Hour Glass Inn, 21 Melbourne Street, Exeter, EX2 4AU) <i>Please note: this dinner is included as part of the event; no additional payment is required.</i>	

<b>Day 3 – Wednesday 10 December 2025</b>		
Venue: Laver 320, North Park Road, Streatham Campus		
08:00 – 08:30	 Morning Coffee & Networking	
Keynote (Chair: Yang Liu)		
08:30 – 09:15	A Physics-Enhanced Machine Learning Perspective on Non-Smooth Dynamical Systems	Alice Cicirello
Session 9 (Chair: Petri Piiroinen)		
09:15 – 09:35	Discontinuous SLIP Model for Human Running	Piotr Kowalczyk
09:35 – 09:55	Vibrational Response of Medical Handheld Burs: Experimental Characterisation and Modelling	Meiyazhagan Jaganathan
09:55 – 10:15	Real-Time Simulation Enabled Navigation Control of Magnetic Soft Continuum Robots in Confined Lumens	Weicheng Huang
10:15 – 10:35	Bifurcation-Based Mechanical Sensing of Microchannels using Microrobots	Andrew Bickerdike
10:35 – 10:55	 Coffee Break	
Closing Keynote (Chair: Aasifa Rounak)		
10:55 – 11:40	Retrospective on the Control of Discontinuity-Induced Bifurcations of Periodic Orbits in Vibro-Impact Systems	Harry Dankowicz
11:40 – 12:00	Closing Remarks	Yang Liu & Aasifa Rounak