

5th CRITICS Workshop

27-31 August 2018, Cork



Organization Committee:

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CRITICS
Critical Transitions in Complex Systems



UCC
Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland



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Time	Monday, 27 August	Location: Aula Maxima
08.45-09.25	Registration	
09.25	Opening remarks (Sebastian Wieczorek)	
Chair	Martin Rasmussen	
09.30-10.15	James Gleeson - Cascade dynamics on networks	
10.20-11.05	Edgar Knobloch - Pinning and Depinning in Nonautonomous Systems	
11.10-11.40	Tea/coffee break	
11.40-12.10	Henk Dijkstra - The point of no return for climate action: effects of climate uncertainty and risk tolerance	
12.15-12.45	Courtney Quinn - Rate-induced tipping of the AMOC in a global oceanic box model	
12.50-15.00	Lunch break	
Chair	Ulrike Feudel	
15.00-15.30	Peter Ditlevsen - Complex Climate Response to Astronomical Forcing: The Middle-Pleistocene Transition in Glacial Cycles and Changes in Frequency Locking	
15.35-16.05	Christian Pangerl - A Girsanov approach to slow parameterising manifolds in the presence of noise	
16.10-17.30	Informal Discussions	
17.30-20.00	Welcome Reception at Franciscan Well Brewery	

Time	Tuesday, 28 August	Location: Aula Maxima
09.00-09.30	Registration	
Chair	Kathrin Padberg-Gehle	
09.30-10.15	Philipp Hoevel - Rise and fall of online topics: understanding dynamic hashtag communities	
10.20-11.05	Didier Sornette - A General Framework Reconciling Rational with Inefficient Financial Bubbles and a novel mechanism for financial fubbles (time-varying momentum horizon)	
11.10-11.40	Tea/coffee break	
11.40-12.10	Ulrike Feudel - Tipping phenomena in typical dynamical systems subjected to parameter drift	
12.15-12.45	Egbert van Nes - Global resilience of tropical forests and savannas to critical transitions	
12.50-15.00	Lunch break	
Chair	Jan Sieber	
15.00-15.30	Rafael Obaya - Persistence in monotone skew-product semiflows with applications to non-autonomous Nicholson systems	
15.35-16.05	Anna Vanselow - Rate-induced transitions in population dynamics	
16.10-17.00	Informal Discussions	
17.00-19.00	Poster Session with music, snack and drinks	

Time	Wednesday, 29 August	Location: Aula Maxima
09.00-09.30	Registration	
Chair	Peter Ditlevsen	
09.30-10.15	John Dearing - Anatomy of a critical transition: Erhai lake, SW China	
10.20-11.05	Marten Scheffer - Quantifying Systemic resilience of humans and other animals	
11.10-11.40	Tea/coffee break	
11.40-12.10	Carmen Nunez - Li-Yorke chaos in nonautonomous Hopf bifurcation	
12.15-12.45	Pablo Rodríguez-Sánchez - Neutral competition and chaos. An example of reproducible research	
12.50-15.00	Lunch break	
15.00	Bus to Kinsale. Departure at UCC Western Gateway Building	
16.00-17.30	Tour of Kinsale	
18.00	Dinner at Fishy Fishy	

Time	Thursday, 30 August	Location: Aula Maxima
Chair	Jeroen Lamb	
09.30-10.15	Mike Jeffrey - Hidden nonlinearities of switching	
10.20-11.05	Chris Jones - Rate-Induced Tipping in Systems of ODEs	
11.10-11.40	Tea/coffee break	
11.40-12.10	Jan Sieber - Rate-dependence in shell buckling problems	
12.15-12.45	Paul Ritchie - Searching for UK ecosystem tipping points in a land-surface model	
12.50-15.00	Lunch break	
Chair	Peter Ashwin	
15.00-16.00	Panel Discussion	
16.00-18.00	CRITICS Steering Committee Meeting (Committee Members only)	

Time	Friday, 31 August	Location: Civil Engineering Building Room CE G10
Chair	Chris Jones	
09.30-10.15	Andrew Keane - Bifurcations and multi-frequency tipping in a periodically forced delay differential equation	
10.20-11.05	Johan Dubbeldam - Weighted multilayer competition fosters structural stability of mutualistic ecosystems	
11.10-11.40	Tea/coffee break	
11.40-12.10	Sajjad Bakrani - Invariant Manifolds of a homoclinic orbit in a 4D system with a first integral and a \mathbb{Z}_2 symmetry	
12.15-12.45	Andreas Amann - The Devil is in the Spectrum: The Eigenvalue Distribution of the Discrete Preisach Memory Model	
12.50	Closing remarks	
13.00-15.00	Lunch break	