PROGRAM AT A GLANCE (TIME: UTC+2)

Minisymposia talks will be 30 min. long (25 min. + 5 min. for questions)

Contributed talks will be 20 min. long (15 min. + 5 min. for questions)

Monday 23 August 2021

10am-11am: Verônica Grieneisen (Cardiff University, UK) (link)

11am-1pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS01 (link) Data-based analysis of complex dynamical systems	**MS02 (link)** Diffractive and dispersive nonlinear optics ***Part 1***	**MS03 (link)** Nonlinear waves in biology ***Part 1***	**MS04 (link)** Homoclinic snaking 21 years later; a tribute to Patrick Woods	**CS01 (link)** Bifurcations, fractals, Turing patterns	**CS02 (link)** Bifurcations in physical systems

1pm-3pm: Lunch Break

3pm-4pm: G. Bard Ermentrout (University of Pittsburgh, USA) (link)

4pm-6pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS05 (link) Dynamic properties from observations - mathematical methods and applications	**MS06 (link)** Diffractive and dispersive nonlinear optics ***Part 2***	**MS07 (link)** Nonlinear waves in biology ***Part 2***	**MS08 (link)** Kinetic modeling of interacting particle systems	**CS03 (link)** Brain networks	**CS04 (link)** Critical transitions and tipping

Tuesday 24 August 2021

10am-11am: Anna S. von der Heydt (Universiteit Utrecht, Netherlands) (link)

11am-1pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS09 (link) Inference and data-driven modeling of large, chaotic, and noisy systems - ***Part 1***	**MS10 (link)** Multiple-diffusive instabilities in rotating complex fluids - ***Part 1***	**MS11 (link)** Dynamical design principles and collective behavior in living systems	**MS12 (link)** Network dynamics with state-dependent interactions and applications to biology and medicine - ***Part 1***	**CS05 (link)** Control techniques	**CS06 (link)** Games, development, pattern formation

1pm-3pm: Lunch Break

3pm-4pm: Alejandro Maass (Universidad de Chile, Chile) (link)

4pm-6pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS13 (link) Inference and data-driven modeling of large, chaotic, and noisy systems - ***Part 2***	**MS14 (link)** Multiple-diffusive instabilities in rotating complex fluids - ***Part 2***	**MS15 (link)** Dynamics and control of biological networks	**MS16 (link)** Network dynamics with state-dependent interactions and applications to biology and medicine - ***Part 2***	**CS07 (link)** Epidemiology	**CS08 (link)** Theoretical dynamical systems

Wednesday 25 August 2021

10am-11am: Sylvain Crovisier (Université Paris Saclay, France) (link)

11am-1pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS17 (link) Random dynamical systems: statistical aspects	**MS18 (link)** Vortex dynamics and turbulence in classical and quantum fluids - ***Part 1***	**MS19 (link)** Wave chaos in mathematics, physics, and engineering	**MS20 (link)** Networks of coupled oscillators and maps: chimera states and beyond - ***Part 1***	**CS09 (link)** Networks	**CS10(link)** Optical systems

1pm-3pm: Lunch Break

3pm-4pm: Christopher K. R. T. Jones (University of North Carolina at Chapel Hill, USA) (link)

4pm-6pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS21 (link) Dissipative systems, data assimilation, and ergodic theory	**MS22 (link)** Vortex dynamics and turbulence in classical and quantum fluids - ***Part 2***	**MS23 (link)** Pattern forming fronts in reaction-diffusion equations	**MS24 (link)** Networks of coupled oscillators and maps: chimera states and beyond - ***Part 2***	**CS11 (link)** Oscillators: applications	**CS12 (link)** Oscillators: synchronization

Thursday 26 August 2021

10am-11am: Björn Hof (Institute of Science and Technology, Austria) (link)

11am-1pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS25 (link) Physics based and data-driven modeling, analysis, and control of cardiac dynamics - ***Part 1***	**MS26 (link)** Vortex dynamics and turbulence in classical and quantum fluids - ***Part 3***	**MS27 (link)** Emergent collective dynamics in neural systems - ***Part 1***	**MS28 (link)** Synchronization patterns in networks: theory and applications - ***Part 1***	**CS13 (link)** Mechanics, statistical physics and condensed matter	**CS14(link)** Natural rhythms

1pm-3pm: Lunch Break

3pm-4pm: Katharina Schratz (Sorbonne Université, France) (link)

4pm-6pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS29 (link) Non-autonomous transitions and bifurcations	**MS30 (link)** Time delayed systems: theory and experiment - ***Part 1***	**MS31 (link)** Recent advances in mean-field modelling of brain dynamics	**MS32 (link)** Synchronization patterns in networks: theory and applications - ***Part 2***	**CS15 (link)** Predictability, learning, estimation	**CS16(link)** Waves and vortices

Friday 27 August 2021

10am-11am: Antonio Politi (University of Aberdeen, UK) (link)

11am-1pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS33 (link) Physics based and data-driven modeling, analysis, and control of cardiac dynamics - ***Part 2***	**MS34 (link)** Time delayed systems: theory and experiment - ***Part 2***	**MS35 (link)** Emergent collective dynamics in neural systems - ***Part 2***	**MS36 (link)** Instabilities, bifurcations and collective phenomena in active matter - ***Part 1***	**MS37 (link)** Instabilities and patterns in extended systems and their control	**CS17 (link)** Data analysis and data-driven modelling

1pm-3pm: Lunch Break

3pm-4pm: Lai-Sang Young (Courant Institute, New York University, USA) (link)

4pm-6pm: Parallel Sessions

Track #1	Track #2	Track #3	Track #4	Track #5	Track #6
MS38 (link) Multiple time scale dynamics and applications	**MS39 (link)** Time delayed systems: theory and experiment - ***Part 3***	**MS40 (link)** Neuronal dynamics: from single cell up to large-scale networks	**MS41 (link)** Instabilities, bifurcations and collective phenomena in active matter - ***Part 2***	**MS42 (link)** The dynamics of vision	**CS18 (link)** Turbulence

LIST OF MINISYMPOSIA

MS01: Data-based analysis of complex dynamical systems

Proposed by: Yannick De Decker (ULB, Brussels, Belgium)

Fei Lu	feilu@math.jhu.edu	*Nonparametric learning of interaction kernels in mean-field equations of interacting particles*
Oliver Junge	oj@tum.de	*Linear response for finite-time coherent sets from data*
Astero Provata	a.provata@inn.demokritos.gr	*The role of fractal and reflecting connectivities in networks of FitzHugh-Nagumo oscillators*
Lucia Russo	lucia.russo@stems.cnr.it	*NONLINEAR EMERGENT DYNAMICS OF AGENT BASED MODELS FOR URBAN MOBILITY*

MS02: Diffractive and dispersive nonlinear optics - Part 1

Proposed by: Mustapha Tlidi (ULB, Brussels, Belgium) and Marcel Clerc (University of Chile, Santiago, Chile)

Stefania Residori	stefaniaresidori@yahoo.com	*Nonlinear Optical Applications of Liquid Crystal Light Valves*
Gregorio González-Cortés	gregorio.gonzalez@ug.uchile.cl	*Localized standing waves induced by spatiotemporal forcing*
Rodrigo Vicencio	rvicencio@uchile.cl	*Chaos on a saturable dimer*
Ignacio Ortega Piwonka	ignacio.ortega.piwonka@gmail.com	*Spike propagation in a nanolaser-based optoelectronic neuron*

MS03: Nonlinear waves in biology - Part 1

Proposed by: Lendert Gelens (KU Leuven, Belgium) and Carsten Beta (University of Potsdam, Germany)

Karsten Kruse	Karsten.Kruse@unige.ch	*Geometric-mechanical coupling of chemical waves*
Arik Yochelis	yochelis@bgu.ac.il	*Collisions of excitable solitons: Annihilation, crossover, and nucleation of pulses in a model describing intracellular actin waves*
Andrew Goryachev	andrew.goryachev@ed.ac.uk	*Wave instability in the cell surface waves*
Daniel Ruizreynes	daniel.ruizreynes@kuleuven.be	*Waves and patterns in cell-free cytoplasmic extracts*

MS04: Homoclinic snaking 21 years later; a tribute to Patrick Woods

Proposed by: Alan R. Champneys (University of Bristol, UK)

Fahad Al Saadi	fa17741@bristol.ac.uk	*Localised* patterns and semi-strong interaction, a unifying framework for reaction-diffusion systems
Max Philipp Holl	m.p.holl@wwu.de	*Localized States in Passive and Active Phase-Field-Crystal Models*
Tobias Frohoff-Hülsmann	t_froh01@wwu.de	*Localized states in coupled Cahn-Hilliard equations*
Nicolas Verschueren	nverschueren@berkeley.edu	*Pattern formation on a finite disk*

MS05: Dynamic properties from observations - mathematical methods and applications

Proposed by: Anna Dittus, Konstantinos Spiliotis and Jens Starke (Rostock University, Germany)

Felix Dietrich	felix.dietrich@tum.de	*Data-Driven Prediction of Crowd Mobility through Koopman Operator Approximation*
Theresa Lange	tlange@math.uni-bielefeld.de	*Mean field limit of Ensemble Square Root Filters*
Yannick De Decker	Yannick.De.Decker@ulb.be	*Complex dynamics of redox reactions on nanosized catalyst samples*
Constantinos Siettos	constantinos.siettos@unina.it	*Numerical Solution of Nonlinear PDEs with Extreme Learning Machines*

MS06: Diffractive and dispersive nonlinear optics - Part 2

Proposed by: Mustapha Tlidi (ULB, Brussels, Belgium) and Marcel Clerc (University of Chile, Santiago, Chile)

Mario Molina	mmolina@uchile.cl	*General Nonlinear Impurity in a Photonic Array: Green Function Approach*
Michel Ferré	michel.ferre.diaz@gmail.com	*Chimera-like states in Lugiato-Lefever equation*
Saliya Coulibaly	saliya.coulibaly@univ-lille.fr	*Forecasting turbulence in a passive resonator with supervised machine learning*
François Leo	francois.leo@ulb.be	*Parametrcially driven dissipative optical solitons*

MS07: Nonlinear waves in biology - Part 2

Proposed by: Lendert Gelens (KU Leuven, Belgium) and Carsten Beta (University of Potsdam, Germany)

Karen Alim	k.alim@tum.de	*Network morphology to store memories*
Marcus Hauser	marcus.hauser@ovgu.de	*Oscillations and waves of NADH subpopulations during glycolysis in yeast cells*
Louise Arno	Louise.Arno@kuleuven.be	*Phase defects in electrical patterns during heart rhythm disorders*
Azam Gholami	azam.gholami@ds.mpg.de	*Resistive force theory and wave dynamics in swimming flagellar apparatus isolated from C. reinhardtii*

MS08: Kinetic modeling of interacting particle systems

Proposed by: Giovanni Samaey (KU Leuven, Belgium)

Chiara Segala	chiara.segala-1@unitn.it	*MOMENT-DRIVEN PREDICTIVE CONTROL OF MEAN-FIELD COLLECTIVE DYNAMICS*
Gianluca Favre	gianluca.favre@univie.ac.at	*Thermalization of a rarefied gas with total energy conservation*
Rafael Bailo	rafael.bailo@univ-lille.fr	*Projective and Telescopic Projective Integration for Kinetic Mixtures*
Julian Koellermeier	julian.koellermeier@kuleuven.be	*Spatially Adaptive Projective Integration for Moment Models of Rarefied Gases*

MS09: Inference and data-driven modeling of large, chaotic, and noisy systems - Part 1

Proposed by: Kevin K Lin (University of Arizona, Tucson, USA) and Fei Lu (Johns Hopkins University, Baltimore, USA)

Massimiliano Tamborrino	massimiliano.tamborrino@warwick.ac.uk	*Structure-preserving Approximate Bayesian Computation for complex stochastic models*
Irene Tubikanec	irene.tubikanec@jku.at	*On the interface of stochastic differential equations, structure-preserving numerics and statistical inference*
Felix Ye	xye16@jhu.edu	*Nonlinear model reduction for slow-fast stochastic systems near manifolds*
Logan Chariker	bortkiew@gmail.com	*Emergent dynamics in a detailed, data-driven model of visual cortex*

MS10: Multiple-diffusive instabilities in rotating complex fluids - Part 1

Proposed by: Oleg N. Kirillov (Northumbria University, Newcastle upon Tyne, UK) and Innocent Mutabazi (Normandie University, Caen, France)

Kengo Deguchi	kengo.deguchi@monash.edu	*Self-sustained shear driven Hall MHD dynamos*
Joris Labarbe	joris.labarbe@northumbria.ac.uk	*Instability windows of Chandrasekhar-Friedman-Schutz instability*
Oleg Kirillov	oleg.kirillov@northumbria.ac.uk	*Double-diffusive instabilities in rotating hydrodynamic and magnetohydrynamic flows*
Jerome Mougel	jerome.mougel@imft.fr	*Effect of the free surface on the stability and energy harvesting efficiency of a tensioned membrane in a uniform current*

MS11: Dynamical design principles and collective behavior in living systems

Proposed by: Philip Bittihn (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany)

Erwin Frey	frey@lmu.de	*Design Principles of Protein Patterns*
Stefan Klumpp	stefan.klumpp@phys.uni-goettingen.de	*Magnetotactic navigation in complex environments*
Yoav G. Pollack	yoav.pollack@ds.mpg.de	*Competition drivers in confined cellular aggregates: Does dead matter matter?*
Vasily Zaburdaev	vasily.zaburdaev@fau.de	*Theory of active phase separation for bacterial aggregates*

MS12: Network dynamics with state-dependent interactions and applications to biology and medicine - Part 1

Proposed by: Erik Andreas Martens (Technical University of Denmark, Lyngby, Denmark), Krasimira Tsaneva-Atanasova (University of Exeter, UK), Christian Bick (University of Exeter, UK) and Yi-Ming Lai (University of Nottingham, UK)

Christian Kuehn	ckuehn@ma.tum.de	*Adaptive Epidemic Network Dynamics*
Roderick Edwards	edwards@uvic.ca	*A motif in the regulation of plant metabolism and piecewise-linear approximation of biochemical networks*
Yi-Ming Lai	yi.lai1@nottingham.ac.uk	*Master stability functions & pattern formation: from networks to continua*
Charo del Genio	ad0364@coventry.ac.uk	*Mean-field synchronization in multiplex networks*

MS13: Inference and data-driven modeling of large, chaotic, and noisy systems - Part 2

Proposed by: Kevin K Lin (University of Arizona, Tucson, USA) and Fei Lu (Johns Hopkins University, Baltimore, USA)

Xiantao Li	xiantao.li@psu.edu	*Generalized constitutive relation for nano-scale heat conduction*
Kevin McGoff	kmcgoff1@uncc.edu	*Gibbs posterior convergence and the thermodynamic formalism*
Marcella Gomez	mgomez26@ucsc.edu	*Data-driven methods for modeling and control in wound healing*
Panos Stinis	panagiotis.stinis@pnnl.gov	*Optimal renormalization of multi-scale systems*

MS14: Multiple-diffusive instabilities in rotating complex fluids - Part 2

Proposed by: Oleg N. Kirillov (Northumbria University, Newcastle upon Tyne, UK) and Innocent Mutabazi (Normandie University, Caen, France)

Manikandan Mathur	manims@ae.iitm.ac.in	*Diffusive and curvature effects on symmetric instability in stratified vortices*
Suraj Singh	surajsingh108talk@gmail.com	*Double-diffusive effects in the local instabilities of an elliptical vortex*
Laurette Tuckerman	laurette@pmmh.espci.fr	*Double-diffusive convection via 2 by 2 matrices*
Harunori Yoshikawa	Harunori.Yoshikawa@univ-cotedazur.fr	*Instabilities in nonisothermal Taylor-Couette flows in radial electric fields*

MS15: Dynamics and control of biological networks

Proposed by: Diego Oyarzún (The University of Edinburgh, Scotland, UK)

Eduardo Sontag	eduardo.sontag@gmail.com	*Strategies for controlling infectious disease dynamics*
Elisenda Feliu	efeliu@math.ku.dk	*On Hopf bifurcations in MAPK signaling systems*
Giulia Giordano	giulia.giordano@unitn.it	*Structural polyhedral stability and pinning control of biochemical networks*
Diego A. Oyarzún	d.oyarzun@ed.ac.uk	*Multiobjective optimization of metabolic control systems*

MS16: Network dynamics with state-dependent interactions and applications to biology and medicine - Part 2

Proposed by: Erik Andreas Martens (Technical University of Denmark, Lyngby, Denmark), Krasimira Tsaneva-Atanasova (University of Exeter, UK), Christian Bick (University of Exeter, UK) and Yi-Ming Lai (University of Nottingham, UK)

Spase Petkoski	spase.petkoski@univ-amu.fr	*Spatio-temporal structure of the connectome organizes the large scale brain activity*
Erik Andreas Martens	erik.martens@math.lth.se	*Understanding the dynamics of biological and neural oscillator networks through exact mean-field reductions*
Áine Byrne	aine.byrne@ucd.ie	*Including synaptic plasticity in a next generation neural mass model*
Serhiy Yanchuk	yanchuk@math.tu-berlin.de	*Frequency cluster formation and slow oscillations in neural populations with plasticity*

MS17: Random dynamical systems: statistical aspects

Proposed by: Sandro Vaienti (Centre de Physique Théorique, Luminy, France)

Cecilia González-Tokman	cecilia.gt@uq.edu.au	*Lyapunov Exponents for Transfer Operator Cocycles of Metastable Maps: a Quarantine Approach*
Francoise Pène	francoise.pene@univ-brest.fr	*stimates on return and mixing for the Z^d-periodic Lorentz gas with infinite horizon (d=1 or d=2)*
Marks Ruziboev	marx.ruziboev@gmail.com	*CRITICAL INTERMITTENCY IN RANDOM INTERVAL MAPS*
Julien Sedro	(sedro@lpsm.paris))()	*Quenched limit theorems for expanding on average cocycles*

MS18: Vortex dynamics and turbulence in classical and quantum fluids - Part 1

Proposed by: Francesco Marino (CNR-INO and INFN, Italy) and Giacomo Roati (CNR-INO and LENS, Italy)

Vanderlei Bagnato	vander@ifsc.usp.br	*EXPERIMENTAL OBSEVATIONS IN A TURBULENT BEC: CHARACTERIZATION AND UNIVERSAL SCALING PROPERTIES*
Nir Navon	nir.navon@yale.edu	*Matter-wave turbulence in a quantum gas*
Dario Ballarini	dario.ballarini@gmail.com	*Towards quantum turbulence in exciton-polariton condensates*
Quentin Glorieux	quentin.glorieux@lkb.upm.fr	*Paraxial fluids of light: from shockwaves to turbulence*

MS19: Wave chaos in mathematics, physics, and engineering

Proposed by: Martin Richter and Gregor Tanner (University of Nottingham, UK)

Victor Tyrode	victor.tyrode@ec-lyon.fr	*Vibrational energy distribution in plate excited with random white noise*
Cédric Van hoorickx	cedric.vanhoorickx@kuleuven.be	*Vibro-acoustic analysis of systems containing domain couplings based on the Gaussian Orthogonal Ensemble*
Jean-Baptiste Gros	jean-baptiste.gros@greenerwave.com	*Reconfigurable intelligent surfaces within electromagnetic cavities : From wave chaos to applications*
Sebastian Müller	sebastian.muller@bristol.ac.uk	*Semiclassical calculation of spectral correlation functions for chaotic systems*

MS20: Networks of coupled oscillators and maps: chimera states and beyond - Part 1

Proposed by: Ralph G. Andrzejak (UPF, Barcelona, Spain) and Eckehard Schöll (TU Berlin, Germany)

Astero Provata	a.provata@inn.demokritos.gr	*Pacemaker effects in Brain Dynamics*
Klaus Lehnertz	Klaus.Lehnertz@ukbonn.de	*Evolving epileptic brain networks*
Ralph G. Andrzejak	ralph.andrzejak@upf.edu	*Chimeras and fractals from two populations of quadratic maps*
Frank Hellmann	hellmann@pik-potsdam.de	*Model Reductions and Coarse Graining in Controlled Oscillator Networks*

MS21: Dissipative systems, data assimilation, and ergodic theory

Proposed by: Jochen Broecker, Giulia Carigi, Lea Oljaca and Tobias Kuna (University of Reading, UK)

Oana Lang	o.lang15@imperial.ac.uk	*Existence and uniqueness of solutions for stochastic shallow water models driven by transport noise*
Benedetta Ferrario	benedetta.ferrario@unipv.it	*Invariant measures for stochastic 2D damped Euler equations*
Wilhelm Stannat	stannat@math.tu-berlin.de	*Stochastic Analysis of Ensemble-based Kalman-type filters*
Amit Apte	apte@icts.res.in	*Stability of filters for deterministic dynamics*

MS22: Vortex dynamics and turbulence in classical and quantum fluids - Part 2

Proposed by: Francesco Marino (CNR-INO and INFN, Italy) and Giacomo Roati (CNR-INO and LENS, Italy)

Iacopo Carusotto	iacopo.carusotto@unitn.it	*Ergoregion instabilities in rotating two-dimensional Bose-Einstein condensates: Perspectives on the stability of quantized vortices*
Maria Chiara Braidotti	mariachiara.braidotti@glasgow.ac.uk	*Penrose superradiance in photon fluids*
Woo Jin Kwon	kwon@lens.unifi.it	*Observation of sound emission and annihilation in a quantum vortex collider*
Alessandra Sabina Lanotte	alessandrasabina.lanotte@cnr.it	*Dynamics of a vortex lattice in a nonequilibrium polariton superfluid*

MS23: Pattern forming fronts in reaction-diffusion equations

Proposed by: Grégory Faye (Institut de Mathématiques de Toulouse, France)

Lukas Eigentler	leigentler001@dundee.ac.uk	*Pattern formation can enable species coexistence in resource-limited ecosystems*
Björn de Rijk	bjoern.derijk@mathematik.uni-stuttgart.de	*Stability of pattern-forming fronts with a quenching mechanism*
David Lloyd	d.lloyd@surrey.ac.uk	*Numerical continuation of pattern forming fronts outside the homoclinic snaking region*
Gabriela Jaramillo	gabriela@math.uh.edu	*A normal form for rotating waves in oscillatory media with nonlocal interactions*

MS24: Networks of coupled oscillators and maps: chimera states and beyond - Part 2

Proposed by: Ralph G. Andrzejak (UPF, Barcelona, Spain) and Eckehard Schöll (TU Berlin, Germany)

Rico Berner	rico.berner@physik.tu-berlin.de	*Emergence of solitary states in adaptive nonlocal oscillator networks*
Christian Bick	c.bick@vu.nl	*Interactions and Noninteractions: Synchrony and beyond in oscillators with dead zones*
Galina Strelkova	strelkovagi@sgu.ru	*Relay and complete sinchronization in heterogeneous multiplex networks of discrete maps*
Jakub Sawicki	zergon@gmx.net	*Partial relay synchronization in multiplex networks*
Sarika Jalan	sarika@iiti.ac.in	*Explosive synchronization in interlayer phase-shifted Kuramoto oscillators on multiplex networks*

MS25: Physics based and data-driven modeling, analysis, and control of cardiac dynamics - Part 1

Proposed by: Ulrich Parlitz (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany), Stefan Luther (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany) and Maxime Sermesant (Inria Sophia Antipolis, Université Côte d'Azur, France)

Alexander Panfilov	Alexander.Panfilov@UGent.be	*In silico–in vitro approach to study and control cardiac arrhythmias*
Arkady Pertsov	pertsova@upstate.edu	*Evolution of Scroll Ring in Myocardial Wall*
Patrick Boyle	pmjboyle@uw.edu	*Patient-Specific Simulation of Potentially Pre-Arrhythmogenic Substrate in Embolic Stroke of Undetermined Source*
Rupamanjari Majumder	rupamanjari.majumder@ds.mpg.de	*The chaotic route to spiral wave control: an optogenetics approach*

MS26: Vortex dynamics and turbulence in classical and quantum fluids- Part 3

Proposed by: Francesco Marino (CNR-INO and INFN, Italy) and Giacomo Roati (CNR-INO and LENS, Italy)

Antonio Picozzi	Antonio.Picozzi@u-bourgogne.fr	*Condensation of classical optical waves in multimode fibers: Theory and experimental observation*
Giorgio Krstulovic	krstulovic@oca.eu	*Universal aspects and irreversibility of superfluid vortex reconnections*
Yong-il Shin	yishin@snu.ac.kr	*Vortex Shedding in Atomic Superfluid Gases*
Matthieu Bellec	matthieu.bellec@inphyni.cnrs.fr	*Observation of vortex dynamics in a fluid of light*

MS27: Emergent collective dynamics in neural systems - Part 1

Proposed by: Antonio Politi (Aberdeen University, Scotland, UK) and Alessandro Torcini (University of Cergy-Pontoise, France)

Stephen Coombes	Stephen.coombes@nottingham.ac.uk	*Quasicrystal patterns in a neural field model*
Matteo Di Volo	m.divolo@gmail.com	*Emergence of collective oscillations in balanced neural networks due to endogeneous fluctuations*
Denis Goldobin	Denis.Goldobin@gmail.com	*Collective meanfield dynamics of quadratic integrate-and-fire neurons beyond the Cauchy distribution*
Moritz Helias	m.helias@fz-juelich.de	*Transient chaotic dimensionality expansion by recurrent networks*

MS28: Synchronization patterns in networks: theory and applications - Part 1

Proposed by: Cristina Masoller (UPC, Barcelona, Spain) and Oleh Omel'chenko (University of Potsdam, Germany)

Jordi Soriano	jordi.soriano@ub.edu	*Tuning the richness of dynamical patterns in living neuronal networks through neuroengineering*
Otti D'Huys	o.dhuys@maastrichtuniversity.nl	*Stochastic switching between oscillation patterns: combining stochastic delays and additive phase noise*
Celia Anteneodo	celia.fis@puc-rio.br	*Impact of the range of the interactions and time delays on synchronization patterns*
Oleh Omel'chenko	omelchenko@uni-potsdam.de	*Moving bumps in theta neuron networks*

MS29: Non-autonomous transitions and bifurcations

Proposed by: Iacopo P. Longo and Christian Kuehn (TU Munich, Germany)

Christian Pötzsche	christian.poetzsche@aau.at	*A biased survey on deterministic nonautonomous bifurcations*
Hassan Alkhayuon	hassan.alkhayuon@ucc.ie	*Phase-sensitive tipping: How cyclic ecosystems respond to contemporary climate*
Carmen Núñez	carmen.nunez@uva.es	*R-tipping and saddle-node bifurcation for quadratic nonautonomous ODEs*
Michael Orieux	morieux@sissa.it	*Minimum time control and bifurcations around nilpotent equilibrium*

MS30: Time delayed systems: theory and experiment - Part 1

Proposed by: Serhiy Yanchuk (TU Berlin, Germany), Julien Javaloyes (UIB, Palma, Spain) and Svetlana Gurevich (University of Münster, Germany)

Bernd Krauskopf	b.krauskopf@auckland.ac.nz	*Effects of state-dependence in the delayed feedback loop driving El Niño*
Jan Rombouts	jan.rombouts@kuleuven.be	*Time delays in the cell: from biochemical mechanism to oscillations*
Konstantin Blyuss	k.blyuss@sussex.ac.uk	*Stochastic time-delayed models of autoimmunity*
Isabelle Schneider	isabelle.schneider@fu-berlin.de	*Geometric invariance of determining and resonating centers: Odd- and any-number limitations of Pyragas control*

MS31: Recent advances in mean-field modelling of brain dynamics

Proposed by: Richard Gast and Helmut Schmidt (Max Planck Institute for Cognitive and Brain Science, Leipzig, Germany)

Gustavo Deco	gustavo.deco@upf.edu	*Turbulent-like Dynamics in the Human Brain*
Bastian Pietras	pietras@tu-berlin.de	*Low-dimensional firing rate dynamics for populations of renewal spiking neurons*
Boris Gutkin	boris.gutkin@ens.fr	*Exact network modelling of theta oscillations in the hippocampal formation*
Andreas Daffertshofer	a.daffertshofer@vu.nl	*Gap junctions in basal ganglia — a conceptual model*

MS32: Synchronization patterns in networks: theory and applications - Part 2

Proposed by: Cristina Masoller (UPC, Barcelona, Spain) and Oleh Omel'chenko (University of Potsdam, Germany)

Ulrike Feudel	ulrike.feudel@uni-oldenburg.de	*Transient chaos in complex networks: Desynchronization and state-dependent vulnerability*
Ulrich Parlitz	ulrich.parlitz@ds.mpg.de	*Chaotic transients and dynamical response of coupled oscillators*
Cristina Masoller	cristina.masoller@upc.edu	*Network reconstruction and prediction of the transition to synchrony of coupled oscillators directly from data*
Erik Mau	erikmau@uni-potsdam.de	*Optimizing charge-balanced pulse stimulation for desynchronization*

MS33: Physics based and data-driven modeling, analysis, and control of cardiac dynamics - Part 2

Proposed by: Ulrich Parlitz (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany), Stefan Luther (Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany) and Maxime Sermesant (Inria Sophia Antipolis, Université Côte d'Azur, France)

Thomas Lilienkamp	thomas.lilienkamp@ds.mpg.de	*Utilizing transient dynamics: Controlling spiral wave chaos by small perturbations*
Sebastian Herzog	sherzog3@gwdg.de	*Data-driven modeling of cardiac dynamics by means of neural network hybrids*
Jan Christoph	jan.christoph@ucsf.edu	*A comparison of a physics-based and data-driven inverse reconstruction technique of cardiac excitation wave patterns from mechanical deformation*
Victoriya Kashtanova	victoriya.kashtanova@inria.fr	*EP-Net 2.0: Out-of-Domain Generalisation for Deep Learning Models of Cardiac Electrophysiology*

MS34: Time delayed systems: theory and experiment - Part 2

Proposed by: Serhiy Yanchuk (TU Berlin, Germany), Julien Javaloyes (UIB, Palma, Spain) and Svetlana Gurevich (University of Münster, Germany)

Yuliya Kyrychko	y.kyrychko@sussex.ac.uk	*Dynamics of coupled Kuramoto oscillators with distributed delays*
David Müller-Bender	david.mueller-bender@physik.tu-chemnitz.de	*Laminar Chaos in Experiments: Nonlinear Systems with Time-Varying Delays and Noise*
Giovanni Giacomelli	giovanni.giacomelli@isc.cnr.it	*Spatio-temporal representation of long delayed systems: a new perspective*
Matthias Wolfrum	wolfrum@wias-berlin.de	*Stability properties of temporal dissipative solitons in DDE systems*

MS35: Emergent collective dynamics in neural systems - Part 2

Proposed by: Antonio Politi (Aberdeen University, Scotland, UK) and Alessandro Torcini (University of Cergy-Pontoise, France)

Vincent Hakim	vincent.hakim@ens.fr	*What is the mechanical basis of traveling waves of neural activity observed in motor cortex?*
Halgurd Taher	halgurd.taher@inria.fr	*Exact neural mass model for synaptic-based working memory*
Ekkehard Ullner	e.ullner@abdn.ac.uk	*Ubiquity of collective irregular dynamics*
David Hansel	david.hansel@parisdescartes.fr	*Theory of feature selectivity in rodent primary visual cortex*

MS36: Instabilities, bifurcations and collective phenomena in active matter - Part 1

Proposed by: Fernando Peruani (Université Côte d'Azur, Nice, France) and Luis Gómez (Humboldt University, Berlin, Germany)

Matthew Turner	m.s.turner@warwick.ac.uk	*Intelligent swarming and future entropy*
Carsten Beta	beta@uni-potsdam.de	*How bacterial swimmers with multiple run modes navigate chemical gradients*
Uwe Thiele	u.thiele@uni-muenster.de	*Thin-film modelling of spreading biofilms and of drops of active liquids*
Gerhard Gompper	G.Gompper@fz-juelich.de	*Active Particles in Vesicles and Cells*

MS37: Instabilities and patterns in extended systems and their control

Proposed by: Alexander Nepomnyashchy (Technion - Israel Institute of Technology, Haifa, Israel)

Moshe Sheintuch	cermsll@technion.ac.il	*Dynamics and control of loop reactors*
Laurence Rongy	lrongy@ulb.ac.be	*How to make a flow oscillate in a simple reactive system*
Anna Samoilova	annsomeoil@gmail.com	*Controlling nonlinear wave patterns in Marangoni convection*
Alice Thompson	alice.thompson@manchester.ac.uk	*Controlling instabilities of falling liquid films*

MS38: Multiple time scale dynamics and applications

Proposed by: Hildeberto Jardon Kojakhmetov and Christian Kuehn (TU Munich, Germany)

Annalisa Iuorio	annalisa.iuorio@univie.ac.at	*A PDE model for unidirectional flows: stationary profiles and asymptotic behaviour*
Robbin Bastiaansen	r.bastiaansen@uu.nl	*Behaviour of self-organised, large-scale vegetation patterns*
Jörn Dietrich	joern.dietrich@uni-ulm.de	*Approximating normally attracting invariant manifolds using a trajectory-based optimization approach*
Panagiotis Kaklamanos	p.kaklamanos@sms.ed.ac.uk	*Geometric singular perturbation analysis of the Hodgkin-Huxley equations*

MS39: Time delayed systems: theory and experiment - Part 3

Proposed by: Serhiy Yanchuk (TU Berlin, Germany), Julien Javaloyes (UIB, Palma, Spain) and Svetlana Gurevich (University of Münster, Germany)

Kathy Lüdge	luedge@physik.tu-berlin.de	*Stability and synchronization properties of delay coupled nano-lasers*
Andrei Vladimirov	vladimir@wias-berlin.de	*Short pulse solutions of time-delay laser models*
Mathias Marconi	mathias.marconi@inphyni.cnrs.fr	*Nonlocality induces chains of nested localized structures in lasers*
Sylvain Barbay	sylvain.barbay@c2n.upsaclay.fr	*Delay dynamics in an excitable micropillar laser with saturable absorber*

MS40: Neuronal dynamics: from single cell up to large-scale networks

Proposed by: Alessandro Loppini, Martina Nicoletti, Letizia Chiodo and Simonetta Filippi (Campus Bio-Medico University, Rome, Italy).

Martina Nicoletti	m.nicoletti@unicampus.it	*Single-cell modeling of Caenorhabditis elegans neurons: from sensory to motor neurons*
Alessandro Loppini	a.loppini@unicampus.it	*Inferring excitatory and inhibitory connections in neuronal assemblies*
Joaquin Torres	jtorres@onsager.ugr.es	*Emergence of Chimera States in Hybrid Coupled Neuron Populations*
Simona Olmi	simona.olmi@fi.isc.cnr.it	*Patient-specific network connectivity combined with a next generation neural mass model to test clinical hypothesis of seizure propagation*

MS41: Instabilities, bifurcations and collective phenomena in active matter - Part 2

Proposed by: Fernando Peruani (Université Côte d'Azur, Nice, France) and Luis Gómez (Humboldt University, Berlin, Germany)

Mathieu Leocmach	mathieu.leocmach@univ-lyon1.fr	*Active glass & polycrystal: ergodicity breaking dramatically affects response to self-propulsion*
Luis Gómez-Nava	luis.gomez@hu-berlin.de	*Self-organization of active particles with internal states*
Igor Aronson	isa12@psu.edu	*Superfluid swimmers*
Cristian Huepe	cristian@northwestern.edu	*Order–disorder transitions in a minimal model of active elasticity*

MS42: The dynamics of vision

Proposed by: Bruno Cessac (Biovision team, Inria Sophia Antipolis, Université Côte d'Azur, France)

Bruno Cessac	bruno.cessac@inria.fr	*The Retina as a Dynamical System*
Laurent Perrinet	laurent.perrinet@univ-amu.fr	*Dynamics of the processing of orientation precision in the primary visual cortex*
Gianluigi Mongillo	gianluigi.mongillo@gmail.com	*Glassy phase in dynamically balanced networks*
Romain Veltz	romain.veltz@inria.fr	*Spatial and color hallucinations in a mathematical model of primary visual cortex*

LIST OF CONTRIBUTED SESSIONS

CS01: Bifurcations, fractals, Turing patterns

Stuart Burrell	stuartburrell1994@gmail.com	*The fractal structure of elliptical polynomial spirals*
Renato Huzak	renato.huzak@uhasselt.be	*Fractal dimensions and slow-fast systems*
Hildegard Meyer-Ortmanns	h.ortmanns@jacobs-university.de	*Emerging criticality in heteroclinic dynamics*
Maxim Kuznetsov	kuznetsovmb@mail.ru	*Widening the criteria for emergence of Turing patterns: no need for differential diffusivity and more*
Louis Garénaux	louis.garenaux@math.univ-toulouse.fr	*Stability of a monostable front, after Turing bifurcation behind the front.*
Kamyar Tavakoli	stava089@uottawa.ca	*Complexity tuning by multiple delays*

CS02: Bifurcations in physical systems

Jerome Daquin	jerome.daquin@unamur.be	*Secular and hyperbolic dynamics of Molniya satellites semi-major axis*
Stanisław Biber	s.biber@bristol.ac.uk	*Curious dynamics of a golf ball bounce*
Nana Takeda	n.takeda@chiba-u.jp	*Bifurcation analysis of a density oscillator using two-dimensional hydrodynamic simulation*
Yuki Araya	afsa6722@chiba-u.jp	*Bifurcation analysis of oscillatory combustion using hydrodynamic simulation*
Giorgos Kanellopoulos	kanellop@math.upatras.gr	*The granular monoclinal wave: a dynamical systems survey*
Yudai Okishio	aeda1789@chiba-u.jp	Local bifurcation structure of a bouncing ball system with a piecewise polynomial function for table displacement

CS03: Brain networks

Vladimir Klinshov	vladimir.klinshov@gmail.com	*Efficient reduction of the collective dynamics of neural populations with realistic forms of heterogeneity*
Jinjie Zhu	zhu.j.ag@m.titech.ac.jp	*Taming spikecounts in a bursting neuron with self-induced stochastic resonance*
Ali Khaledi-Nasab	khaledi@stanford.edu	*Parameter-robust decoupling and long-lasting desynchronization by Random Reset stimulation*
Pau Clusella	pau.clusella@upf.edu	*Emergence of complex spatiotemporal oscillations in large-scale brain networks*
Anaïs Espinoso	anais.espinoso@upf.edu	*Studying phase variability and synchronization in the dynamics of electroencephalographic recordings from epilepsy patients*
Konstantinos Spiliotis	konstantinos.spiliotis@uni-rostock.de	*Deep brain stimulation for movement disorder treatment: Exploring frequency-dependent efficacy in a computational network model*

CS04: Critical transitions and tipping

Alanna Hoyer-Leitzel	ahoyerle@mtholyoke.edu	*Rethinking the Definition of Rate-Induced Tipping*
Jorge Tredicce	massimo.giudici@inphyni.cnrs.fr	*Testing Critical Slowing Down as a Bifurcation Indicator in a Low-dissipation Laser System*
Matheus Lazarotto	matheus.lazarotto@usp.br	*Chaotic dynamics in an optical lattice*
Martin Heßler	m_hess23@wwu.de	*Bayesian on-line anticipation of critical transitions*
Arne Vanhoyweghen	arne.vanhoyweghen@vub.be	*Ergodicity and the dynamics of human decision making*
Thomas Bury	thomas.bury@mcgill.ca	*Deep learning for early warning signals of bifurcations*

CS05: Control techniques

Satoshi Sunada	sunada@se.kanazawa-u.ac.jp	*Physical deep learning based on dynamical systems*
Pedro Lencastre	pedro.lencastre.silva@gmail.com	*Searching for intermittent processes in stochastic eye-gaze trajectories*
Henrik Weyer	henrik.weyer@physik.lmu.de	*Wavelength selection by interrupted coarsening in reaction–diffusion systems*
Vladimir Krajnak	v.krajnak@bristol.ac.uk	*Reactive islands framework for systems with three degrees of freedom*
Lina Marcela Ruiz Galvis	lina.ruiz2@udea.edu.co	*Study and modeling of filtering of biological noise by gene regulatory networks in animal development*
Dimitri Danulussi Alves Costa	dimitri.d.costa@gmail.com	*Properties of the extended time-delayed feedback control under model mismatches*
Johann Herault	johann.herault@imt-atlantique.fr	Gait transition induced by hydrodynamic sensory feedback and central pattern generators in an anguilliform swimming robot

CS06: Games, development, pattern formation

Daniel Cooney	dbcooney@sas.upenn.edu	*Long-Time Behavior of a PDE Replicator Equation for Multilevel Selection in Group-Structured Populations*
Shubhadeep Sadhukhan	shubhasports@gmail.com	*Coevolution of cooperation and synchronization: Averting migration dilemma*
Christopher Griffin	griffinch@psu.edu	*Generalized Hamiltonian Dynamics and Chaos in Evolutionary Games on Networks*
Luca Barberi	luca.barberi@unige.ch	*Mechanochemical pattern formation in cells*
Marcello Budroni	mabudroni@uniss.it	*Structure vs dynamics: controlling chemical communication in arrays of diffusively coupled micro-oscillators via compartimentalization properties*
Bradly Alicea	balicea@openworm.org	*Game Theory of Developmental Processes*

CS07: Epidemiology

Michaelte Vrugt	michael.tevrugt@uni-muenster.de	*Effects of social distancing and isolation on epidemic spreading modeled via dynamical density functional theory*
Sarah Fay	scfay@mit.edu	*Simple Control for Complex Pandemics*
Jason Hindes	jmh486@cornell.edu	*Extreme outbreak dynamics*
Davide Faranda	davide.faranda@cea.fr	*Asymptotic Estimates of Sars-CoV-2 Infection Counts and Their Sensitivity to Stochastic Perturbation in SEIR Models*
Maíra Aguiar	maguiar@bcamath.org	*The role of mild and asymptomatic infections on COVID-19 vaccines performance: a modeling study*
Daniel Jonas	djonas25@gmail.com	*A Mathematical Model of Immunity and Tolerance of Disease*

CS08: Theoretical Dynamical Systems

Mauricio Diaz	mauricio.diazraby@gmail.com	*Levels for properties of topological dynamical in the Context of Cellular Automatas*
Dongchen Li	dongchen.li@foxmail.com	*Persistence of Heterodimensional Cycles*
Andrew Burbanks	andrew.burbanks@port.ac.uk	*Computer-assisted proof of the existence of renormalisation fixed points*
Raphael Gerlach	rgerlach@math.upb.de	*On the Approximation of Parameter-Dependent Attractors of Infinite-Dimensional Systems*
Sishu Shankar Muni	s.muni@massey.ac.nz	*Globally Resonant Homoclinic Tangencies*
Fabio Revuelta	fabio.revuelta@upm.es	*Lagrangian descriptors and regular motion*

CS09: Networks

Angxiu Ni	niangxiu@math.berkeley.edu	*Fast linear response algorithm for differentiating stationary measures of chaos*
Melvyn Tyloo	melvyn.tyloo@gmail.com	*Reconstructing Network Structures from Partial Measurements*
Leonhard Schülen	l.schuelen@campus.tu-berlin.de	*Bifurcation mechanisms behind solitary states in neural networks*
Andrew Flynn	andrew_flynn@umail.ucc.ie	*From seeing double to chaotic itinerancy with a multifunctional reservoir computer*
Carlo Laing	c.r.laing@massey.ac.nz	*Effects of degree distributions in random networks of type-I neurons*
Rainer Engelken	re2365@columbia.edu	*Quantifying dynamic stability and signal propagation: Lyapunov spectra of recurrent neural networks*
Bulcsú Sándor	bulcsu.sandor@ubbcluj.ro	*Representing and characterizing complex dynamics by state-transition networks*

CS10: Optical systems

Stefan Ruschel	stefan.ruschel@auckland.ac.nz	*Pulse reverberation with excitable micro-lasers*
Thomas Seidel	thomas.seidel@uni-muenster.de	*Manipulation of Temporal Localized Structures in a VECSEL With Optical Feedback*
Hiroaki Ishikawa	21wd2101@student.gs.chiba-u.jp	*Motion of the source and insert particles driven by the surface tension gradient and lateral capillary interaction*
Ryugo Iwami	r.iwami.692@ms.saitama-u.ac.jp	*Decision making based on mode competition dynamics in a multimode semiconductor laser with optical feedback*
Georgia Himona	gkomin@central.ntua.gr	*Isochrons, Phase Response and Synchronization Dynamics of Optically Injected Lasers*
Radivoje Prizia	radeprizia@gmail.com	*Experimental observation of violent relaxation in a nonlinear optical system*

CS11: Oscillators: applications

Julian Fritzsch	julian.fritzsch@etu.unige.ch	*Long Wavelength Coherence in Well-Connected Power Grids*
Narcicegi Kiran	narcicegi.kiran@khas.edu.tr	*The response of network dynamics to link modification*
Ioana Triandaf	ioana.triandaf@nrl.navy.mil	*Delay Induced Swarm Pattern Bifurcations in Mixed Reality Experiments*
Stamatis Christou	gkomin@central.ntua.gr	*Controllable complex oscillatory dynamics of the fundamental optomechanical oscillator*
Joe Rowland Adams	adamsj3@lancaster.ac.uk	*Modelling open systems with networks of nonautonomous phase oscillators*
Axel Hutt	axel.hutt@inria.fr	*Coherence resonance in Erdös-Rényi networks describes the induction of cortical gamma activity*

CS12: Oscillators: Synchronization

Youngmin Park	ypark@brandeis.edu	*High-Order Accuracy Computation of Coupling Functions for Strongly Coupled Oscillators*
Elena Rybalova	rybalovaev@gmail.com	*Impact of interlayer coupling type in a network of FitzHugh-Nagumo oscillators in the regimes of chimeras and solitary states*
Camille Poignard	camille.poignard@gmail.com	*Self-Induced Synchronisation by large delay*
Ankit Sahay	ankitsahay02@gmail.com	*Coupled behavior of oscillators under asymmetric forcing*
Iván León	ivleon@ifca.unican.es	*The Kuramoto model with higher-order interactions: secondary instabilities and collective chaos*
Rok Cestnik	rokcestn@uni-potsdam.de	*Low dimensional description of large oscillatory ensembles beyond the Ott-Antonsen manifold*

CS13: Mechanics, statistical physics and condensed matter

Salambô Dago	salambo.dago@ens-lyon.fr	*Information and thermodynamics: fast and precise approach to the Landauer's bound in an underdamped micro-mechanical oscillator*
Ingo Rehberg	Ingo.Rehberg@uni-bayreuth.de	*Overload dynamics of a magnetic gear with two cogging-free operation modes*
Francesco Boccardo	francesco.boccardo@univ-lyon1.fr	*Controlling the shape of clusters with a macroscopic field*
Lou Kondic	kondic@njit.edu	*Modeling liquid crystal films on nanoscale*
Elram Figueroa	elram.figueroa.a@mail.pucv.cl	*Numeric model of experimental front microrheology using a non-linear Klein-Gordon equation*
Julyan Cartwright	julyan.cartwright@csic.es	*Nonlinear dynamics determines the thermodynamic instability of condensed matter in vacuo*

CS14: Natural rhythms

Eoin O'Sullivan	114490752@umail.ucc.ie	*Rate-Induced Tipping of the Compost Bomb: Sizzling Summers, Metastable Zombie Fires and Heteroclinic Canards*
Jen Creaser	j.creaser@exeter.ac.uk	*Circadian Re-entrainment Dynamics Organised by Global Invariant Manifolds*
Nina Sviridova	nina.svr@rs.tus.ac.jp	*Effect of recording length on the extraction of the photoplethysmogram dynamical characteristics by recurrence quantification analysis.*
Berenice Rojo-Garibaldi	bendscuevas@gmail.com	*Local Lyapunov exponents of ENSO Events of Coastal Temperatures in the South-Eastern Pacific*
Eldad Afik	eafik@caltech.edu	*Intrinsic Rhythms in a Giant Single-Celled Organism and the Interplay with Time-Dependent Drive, Explored via Self-Organized Macroscopic Waves*
Connah Johnson	c.johnson.6@warwick.ac.uk	*Modelling environmental-metabolic feedback in spatially distributed bio-films*

CS15: Predictability, learning, estimation

Das Suddhasattwa	iamsuddhasattwa@gmail.com	*Dynamics in the learning of dynamical systems*
Massimo Cencini	massimo.cencini@cnr.it	*Effective models and predictability of chaotic multiscale systems via machine learning*
Bálint Kaszás	bkaszas@ethz.ch	*Universal upper estimate for prediction errors under moderate model uncertainty*
Francesco Borra	francesco.borra@uniroma1.it	*Using machine-learning modeling to understand macroscopic dynamics in a system of coupled maps*
Michele Mugnaine	mmugnaine@gmail.com	*Dissipation in the standard nontwist map: the route to chaos and the coexistence of attractors*
Carmen Mazijn	carmen.mazijn@vub.be	*Can we evaluate the fairness of a decision-making algorithm based on its internal dynamics?*

CS16: Waves and vortices

Claudio Falcón	cfalcon@uchile.cl	*Enhanced wave damping in a sloshing experiment: the weakly non-linear case*
Alessandra Sabina Lanotte	alessandrasabina.lanotte@cnr.it	*Dynamics of a vortex lattice in a nonequilibrium polariton superfluid*
Sumithra Reddy Yerasi	yerasisumitra@gmail.com	*Spirographic motion in a vortex*
Yvonne Alama Bronsard	yvonne.alama_bronsard@upmc.fr	*Low regularity integrators for the Gross-Pitaevskii equation*
Renzo Ricca	renzo.ricca@unimib.it	*Twist effects of quantum vortex defect*
Yuchen He	amin.chabchoub@sydney.edu.au	*Experiments on Extreme Wave Events in the Vicinity of Reflective Beaches*

CS17: Data analysis and data-driven modelling

Elizabeth Bradley	michaelneuder@g.harvard.edu	*Detection of Local Mixing in Time-Series Data Using Permutation Entropy*
Yuzuru Kato	kato.y.bg@m.titech.ac.jp	*Koopman operator and phase and amplitude functions for stochastic oscillators*
Mattia Cenedese	mattiac@ethz.ch	*Data-driven low-dimensional nonlinear models on spectral submanifolds*
Nicholas Barendregt	nicholas.barendregt@colorado.edu	*Adaptive Bayesian Inference of Markov Transition Rates*
Manuel Santos Gutiérrez	m.santos@pgr.reading.ac.uk	*Reduced-order models for coupled dynamical systems: data-driven and the Koopman Operator*
Deanna Easley	deasley2@gmu.edu	*Generalizing the Unscented Ensemble Transform to Higher Moments*

CS18: Turbulence

Jane Pratt	jpratt.gsu@gmail.com	*Diffusion and dispersion in anisotropic magnetohydrodynamic turbulence*
Pawan Kumar	pawandahiya4@gmail.com	*Self-organized patterning on the soft tubular structure*
Samarjeet Singh	samarjeet.singh448@gmail.com	*Change of criticality in a turbulent annular combustor*
Marios-Andreas Nikolaidis	mnikolaidis@phys.uoa.gr	*Synchronization of low Reynolds number plane Couette turbulence*
Xiaoliang He	Sourabh.Apte@oregonstate.edu	*Clustering of Inertial Particles in Turbulent Flow Through a Face-Centered Cubic Cell*
Dwight Barkley	D.Barkley@warwick.ac.uk	*The mechanics of finite-time blowup in an Euler flow*
Siddhartha Mukherjee	siddhartha19@gmail.com	*Active turbulence, a Lévy walk away from inertial*