

Monday, 19 of March – Tutorial

8:30–9:00	Registration	
9:00–10:30	Arkady Pikovsky Potsdam, Germany	Hierarchy of synchronization models
10:30–11:00	Coffee	
11:00–12:30	Michael Rosenblum Potsdam, Germany	Synchronization approach to data analysis
12:35–14:00	Lunch	
14:00–15:30	Ralph G. Andrzejak Barcelona, Spain	A brief introduction to nonlinear time series analysis
15:30–16:00	Coffee	
16:00–17:30	Aneta Stefanovska Lancaster, UK	Understanding real-world systems from the perspective of time-varying dynamics

Tuesday, 20 of March

8:30–9:00	Registration		
9:00–9:10	Welcome remarks		
9:10–10:05	KL	Damián H. Zanette San Carlos de Bariloche, Argentina	Synchronization in micromechanical oscillators
10:05–10:30	CT	Claudius Gros Frankfurt, Germany	Embodied locomotion through self-organized frequency locking
10:30–11:00	Coffee		
11:00–11:40	IS	Diego Pazó Santander, Spain	Recent findings on the Winfree model
11:40–12:10	CT	Franziska Peter Potsdam, Germany	Emergence of a collective mode in the finite size Kuramoto model
12:10–12:45	IS	Juan Restrepo Colorado, USA	Uncovering low-dimensional macroscopic chaotic dynamics of large finite size complex systems
12:45–14:00	Lunch		
14:00–14:30	CT	Valérie Voorsluijs Brussels, Belgium	Nonlinear dynamics and fluctuation-induced behaviour in a photosensitive oscillatory reaction
14:30–15:05	IS	Hiroya Nakao Tokyo, Japan	Phase reduction and synchronization of rhythmic spatiotemporal patterns
15:05–15:30	Coffee		
15:30–16:00	CT	Soheila Samiee Montreal, Canada	Phase amplitude coupling and epileptogenesis in an animal model of mesial temporal lobe epilepsy
16:00–16:40	IS	Gustavo Deco Barcelona, Spain	Brain Songs: discovering the relevant timescale of the human brain
16:40–17:10	CT	Cristina G. B. Martínez Barcelona, Spain	Using nonlinear time series analysis to assess the interplay between epilepsy and sleep
17:10–19:30	Poster session with Wine & Cheese		

Wednesday, 21 of March

9:00–9:40	IS	Cristina Masoller Barcelona, Spain	Network dissimilarity measure and application to brain network differentiation
9:40–10:10	CT	Nicolas Fourcaud-Trocmé Lyon, France	Evolution of slow and fast rhythm networks during learning of an olfactory discrimination task
10:10–10:45	IS	Alex Roxin Barcelona, Spain	Fluctuation-driven plasticity allows for flexible rewiring on neuronal assemblies
10:45–11:15	Coffee		
11:15–11:55	IS	Florian Mormann Bonn, Germany	Perception and memory at the level of single neurons in the human medial temporal lobe
11:55–12:45	IS	Raffaella Burioni Parma, Italy	Neuronal avalanches in cortex dynamics and the synchronization transition
12:45–14:00	Lunch		
14:00–14:30	CT	Arindam Saha Oldenburg, Germany	Emergence of Riddled Basins of Attraction in Delay-coupled FitzHugh-Nagumo Oscillators
14:30–15:05	IS	Peter Ashwin Exeter, UK	Rate-dependent tipping: non-autonomous dynamics and critical transitions
15:05–15:30	Coffee		
15:30–16:00	CT	Igor Franovic Belgrade, Serbia	Switching dynamics in networks of stochastic rate-based neurons
16:00–16:40	IS	Tilo Schwalger Lausanne, Switzerland	Finite-size effects in the mesoscopic dynamics of spiking neural networks
16:40–17:10	CT	Helmut Schmidt Barcelona, Spain	Network mechanisms underlying the role of oscillations in cognitive tasks
17:10–19:30	Poster session with Wine & Cheese		

Thursday, 22 of March

9:00-9:40	IS	Yamir Moreno Zaragoza, Spain	Synchronization of Kuramoto Oscillators in Complex Networked Systems
9:40-10:10	CT	Giulia Cencetti Florence, Italy	Dynamical invariance on complex networks
10:10-12:45	IS	Ginestra Bianconi London, UK	Emergent Complex Network Geometry and Frustrated Synchronization
10:45-11:10	Coffee		
11:10-11:40	CT	Géza Ódor Budapest, Hungary	Effects of heterogeneity in power grid network models
11:40-12:10	CT	Otti D'Huys Birmingham, UK	Dynamics of networks with time-varying connections
12:10-12:45	IS	Albert Díaz-Guilera Barcelona, Spain	Synchronization in populations of moving oscillators
12:45-14:00	Lunch		
14:00-14:30	CT	Denis Goldobin Perm, Russia	Synchronization of coupled active rotators by common noise
14:30-15:00	CT	Rico Berner Berlin, Germany	Hierarchical clusters in networks of adaptively coupled oscillators
16:30-18:00	Excursion		
20:00	Conference Dinner		

Friday, 23 of March

9:00 – 9:40	IS	Jordi García-Ojalvo Barcelona, Spain	Emergence of oscillations in bacterial populations
9:40–10:20	IS	Dante Chialvo Buenos Aires, Argentina	Life at the edge, complexity and criticality in biological function
10:20–10:45	IT	Jörg Müller Barcelona, Spain	Diversity in Science: exploring the strength of research collaborations
10:45–11:10	Coffee		
11:10-11:40	CT	Alexander Schlemmer Göttingen, Germany	Characterizing Cardiac Arrhythmia using Multi-Dimensional Permutation Entropy
11:40–12:35	KL	Leon Glass Montreal, Canada	Geometric aspects of the dynamics and diagnosis of cardiac arrhythmias
12:35–12:45	Poster Prize & Conclusion		
12:45–14:00	Lunch		