

# Timetable

CT: Contributed Talk, IS: Invited Speaker, KL: Keynote Lecture.

## Monday, 19 of March – Tutorial

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

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\* Lunches and coffee breaks were provided by the UPF through the COSMOS consortium.

# Tuesday, 20 of March

8:30–9:00		<b>Registration</b>	
9:00–9:10		<b>Welcome remarks</b>	
9:10–10:05	IS	<b>Cristina Masoller</b> Barcelona, Spain	Network dissimilarity measure and application to brain network differentiation
10:05–10:30	CT	<b>Claudius Gros</b> Frankfurt, Germany	Embodied locomotion through self-organized frequency locking
10:30–11:00		<b>Coffee *</b>	
11:00–11:40	IS	<b>Diego Pazó</b> Santander, Spain	Recent findings on the Winfree model
11:40–12:10	CT	<b>Franziska Peter</b> Potsdam, Germany	Emergence of a collective mode in the finite size Kuramoto model
12:10–12:45	IS	<b>Peter Ashwin</b> Exeter, UK	Rate-dependent tipping: non-autonomous dynamics and critical transitions
12:45–14:00		<b>Lunch *</b>	
14:00–14:30	CT	<b>Valérie Voorsluijs</b> Brussels, Belgium	Nonlinear dynamics and fluctuation-induced behaviour in a photosensitive oscillatory reaction
14:30–15:05	IS	<b>Hiroya Nakao</b> Tokyo, Japan	Phase reduction and synchronization of rhythmic spatiotemporal patterns
15:05–15:30		<b>Coffee *</b>	
15:30–16:00	CT	<b>Soheila Samiee</b> Montreal, Canada	Phase amplitude coupling and epileptogenesis in an animal model of mesial temporal lobe epilepsy
16:00–16:40	IS	<b>Gustavo Deco</b> Barcelona, Spain	Brain Songs: discovering the relevant timescale of the human brain
16:40–17:10	CT	<b>Cristina G. B. Martínez</b> Barcelona, Spain	Using nonlinear time series analysis to assess the interplay between epilepsy and sleep
17:10–19:30		<b>Poster session with Wine &amp; Cheese</b>	

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# Wednesday, 21 of March

cancelled	KL	<b>Damián H. Zanette</b> San Carlos de Bariloche, Argentina	Synchronization in micromechanical oscillators
9:40–10:10	CT	<b>Nicolas Fourcaud-Trocmé</b> Lyon, France	Evolution of slow and fast rhythm networks during learning of an olfactory discrimination task
10:10–10:45	IS	<b>Alex Roxin</b> Barcelona, Spain	Fluctuation-driven plasticity allows for flexible rewiring on neuronal assemblies
10:45–11:15	<b>Coffee *</b>		
11:15–11:55	IS	<b>Florian Mormann</b> Bonn, Germany	Perception and memory at the level of single neurons in the human medial temporal lobe
11:55–12:45	IS	<b>Raffaella Burioni</b> Parma, Italy	Neuronal avalanches in cortex dynamics and the synchronization transition
12:45–14:00	<b>Lunch *</b>		
14:00–14:30	CT	<b>Arindam Saha</b> Oldenburg, Germany	Emergence of Riddled Basins of Attraction in Delay-coupled FitzHugh-Nagumo Oscillators
14:30–15:05	IS	<b>Juan Restrepo</b> Colorado, USA	Uncovering low-dimensional macroscopic chaotic dynamics of large finite size complex systems
15:05–15:30	<b>Coffee *</b>		
15:30–16:00	CT	<b>Igor Franovic</b> Belgrade, Serbia	Switching dynamics in networks of stochastic rate-based neurons
16:00–16:40	IS	<b>Tilo Schwalger</b> Lausanne, Switzerland	Finite-size effects in the mesoscopic dynamics of spiking neural networks
16:40–17:10	CT	<b>Helmut Schmidt</b> Barcelona, Spain	Network mechanisms underlying the role of oscillations in cognitive tasks
17:10–19:30	<b>Poster session with Wine &amp; Cheese</b>		

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# Thursday, 22 of March

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

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# Friday, 23 of March

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

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