

Symposium Control of Network Dynamics (SYND)

jointly organized by  
the Dynamics and Statistical Physics Division (DY),  
the Biological Physics Division (BP), and  
the Physics of Socio-economic Systems Division (SOE)

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Controlling the dynamics on networks and of networks is a significant issue in basic nonlinear science, which involves the interplay of the topological structure of complex networks and nonlinear dynamics, as well as synchronization, adaptation, and robustness. At the same time it has great importance for applications in diverse fields ranging from physics and biology to socio-economic and technological systems, for instance genetic networks or stability and control of power grids, with implications for the current debate on renewable energy.

Overview of Invited Talks and Sessions

(lecture room H 0105)

Invited Talks

SYND 1.1	Thu	9:30–10:00	H 0105	<b>Controlling Complex Networks with Compensatory Perturbations</b> — ●ADILSON E. MOTTER
SYND 1.2	Thu	10:00–10:30	H 0105	<b>Toward control, prediction, and optimization of biological and engineering complex networks</b> — ●KAZUYUKI AIHARA
SYND 1.3	Thu	10:30–11:00	H 0105	<b>Design of robust functional networks as complex combinatorial optimization problem</b> — ●ALEXANDER S. MIKHAILOV
SYND 1.4	Thu	11:00–11:30	H 0105	<b>Braess Paradox, (In-)Stability and Optimal Design: Nonlinear Dynamics of Modern Power Grids</b> — ●MARC TIMME, DIRK WITTHAUT, MARTIN ROHDEN, ANDREAS SORGE
SYND 1.5	Thu	11:30–12:00	H 0105	<b>Delay-Coupled Laser Networks: Complex Behavior, Synchronization and Applications</b> — ●INGO FISCHER

Sessions

SYND 1.1–1.5	Thu	9:30–12:00	H 0105	<b>Symposium Control of Network Dynamics (SYND)</b>
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