

Collective Social Dynamics from Animals to Humans (SYSO)

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

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Collective opinion formation, emergence of hierarchies and collective dynamics on markets are typical phenomena both of bacterial and animal as well as of socio-economic communities. Statistical physics concepts widely contributed to the understanding of such nonlinear collective phenomena. Collective movement of humans in public space have been an early studied dynamics of active Brownian motion. This symposium integrates individual modeling of human and animal behaviour, movement and mobility, opinion formation, information processing and group interactions towards an understanding of the self-organizing dynamics in societies.

Overview of Invited Talks and Sessions

(Lecture hall H1)

Invited Talks

SYSO 1.1	Thu	9:30–10:00	H1	Capturing group interactions: The next frontier of modeling social and biological systems — ●FRANK SCHWEITZER
SYSO 1.2	Thu	10:00–10:30	H1	Modelling Individual Mobility Behavior — ●LAURA MARIA ALESSANDRETTI
SYSO 1.3	Thu	10:30–11:00	H1	Validating argument-based opinion dynamics with survey experiments — ●SVEN BANISCH
SYSO 1.4	Thu	11:15–11:45	H1	Self-organization, Criticality and Collective Information Processing in Animal Groups — ●PAWEL ROMANCZUK
SYSO 1.5	Thu	11:45–12:15	H1	Collective dynamics and physiological interactions in bird colonies — ●HANJA BRANDL

Sessions

SYSO 1.1–1.5	Thu	9:30–12:15	H1	Collective social dynamics from animals to humans
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