

## Physics of Socio-economic Systems Division Fachverband Physik sozio-ökonomischer Systeme (SOE)

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### Overview of Invited Talks and Sessions

(Lecture Room H37; Poster C)

#### Plenary Talks related to SOE

PV III Mon 14:00–14:45 H15 **The Dynamics of Wealth, Persuasion, and Popularity** — ●SIDNEY REDNER

#### Award Session: Young Scientist Award for Socio- and Econophysics

SOE 7.1 Mon 16:00–16:45 H37 **Mind the gap: What can economics, social insects and statistical physics learn from each other?** — ●ALAN KIRMAN

SOE 7.2 Mon 17:00–17:45 H37 **Fighting infectious diseases in a complex world** — ●VITTORIA COLIZZA

#### Invited Talks

SOE 13.1 Tue 12:00–12:45 H37 **The Complexity, Simplicity, and Unity of Living Systems from Cells to Cities; A Physicist's Search for Unifying Theories of Biological and Social Structure and Dynamics** — ●GEOFFREY WEST

SOE 8.1 Tue 9:30–10:15 H37 **Distributed sensing and decision-making in animal and human collectives** — ●IAIN COUZIN

SOE 16.1 Wed 15:00–15:45 H37 **Information spreading and multi-stability in social systems** — ●KIM SNEPPEN

SOE 23.1 Thu 15:00–15:45 H37 **Modelling innovation as expansion into the adjacent possible** — FRANCESCA TRIA, ●VITTORIO LORETO, VITO D.P. SERVEDIO, STEVEN H. STROGATZ

#### Focus Session: Dynamics of Adaptive Networks (joint with DY and BP)

SOE 15.1 Wed 9:30–10:00 H37 **Adaptive Networks: Of social interactions and mathematical tools** — ●ANNE-LY DO

SOE 15.8 Wed 11:30–12:00 H37 **Bio-molecular Networks: Structure, Function, Evolution** — ●MICHAEL LÄSSIG

SOE 15.9 Wed 12:00–12:30 H37 **Adaptive networks and critical dynamics** — ●STEFAN BORNHOLDT

#### Focus Session: Big Data (joint with jDPG)

SOE 22.2 Thu 10:00–10:30 H37 **Network analysis literacy** — ●KATHARINA ANNA ZWEIG

SOE 22.3 Thu 10:30–11:00 H37 **From Noise to Signal. Stories about big data.** — ●SUNE LEHMANN, YONG-YEOL AHN, ALAN MISLOVE, JUKKA-PEKKA ONNELA, NIELS JAMES ROSENQUIST

SOE 22.7	Thu	12:00–12:30	H37	<b>Web-Based Cognitive Science: Harnessing the Power of the Internet to Study Human Cognition</b> — ●CHRISTOPHER Y. OLIVOLA
SOE 22.1	Thu	9:30–10:00	H37	<b>Physics and the Information Society: Turning Big Data into Big Insight</b> — ●RENÉ PFITZNER
SOE 22.6	Thu	11:30–12:00	H37	<b>Information Retrieval, Applied Statistics and Mathematics on BigData</b> — ●ROMEO KIENZLER

## Sessions

SOE 1.1–1.1	Mon	9:30–10:00	H37	<b>Risks and Large Deviations in Economic Networks I</b>
SOE 2.1–2.3	Mon	10:00–10:45	H37	<b>Financial Markets and Risk Management I</b>
SOE 3.1–3.3	Mon	10:45–11:30	H37	<b>Financial Markets and Risk Management II</b>
SOE 4.1–4.6	Mon	11:30–13:00	H37	<b>Economic Growth and Longevity I</b>
SOE 5.1–5.1	Mon	14:00–14:45	H15	<b>Plenary Talk Sidney Redner</b>
SOE 6.1–6.3	Mon	15:00–15:45	H37	<b>Economic Models</b>
SOE 7.1–7.2	Mon	16:00–19:00	H37	<b>YSA Award Ceremony: Young Scientist Award for Socio- and Econophysics</b>
SOE 8.1–8.1	Tue	9:30–10:15	H37	<b>Decision-making in societies (Invited Talk Iain Couzin)</b>
SOE 9.1–9.8	Tue	9:30–11:45	H47	<b>Statistics and Dynamics of/on Networks (joint session BP/DY/SOE)</b>
SOE 10.1–10.4	Tue	10:15–11:15	H37	<b>Opinion Formation I</b>
SOE 11.1–11.2	Tue	11:15–11:45	H37	<b>Opinion Formation II</b>
SOE 12.1–12.1	Tue	11:45–12:00	H37	<b>Risks and Large Deviations in Economic Networks II</b>
SOE 13.1–13.1	Tue	12:00–12:45	H37	<b>Economic Growth and Longevity II (Invited Talk Geoffrey West)</b>
SOE 14.1–14.4	Tue	15:00–16:00	H37	<b>Evolutionary Game Theory (joint with BP and DY)</b>
SOE 15.1–15.9	Wed	9:30–12:30	H37	<b>Focus Session: Dynamics of Adaptive Networks (joint with DY and BP)</b>
SOE 16.1–16.1	Wed	15:00–15:45	H37	<b>Networks (Invited Talk Kim Sneppen)</b>
SOE 17.1–17.5	Wed	15:45–17:00	H37	<b>Networks, From Topology to Dynamics (joint with DY and BP)</b>
SOE 18.1–18.6	Wed	15:00–17:30	H44	<b>Focus Session: Modern Power Grid, Nonlinear Dynamics and Self-Organization (joint with DY)</b>
SOE 19.1–19.4	Wed	17:00–18:00	H37	<b>Social Systems and Group Dynamics</b>
SOE 20.1–20.1	Wed	18:00–18:15	H37	<b>Traffic Dynamics, Urban and Regional Systems</b>
SOE 21	Wed	18:20–19:20	H37	<b>Annual Member's Assembly of SOE</b>
SOE 22.1–22.7	Thu	9:30–12:30	H37	<b>Focus Session: Big Data (joint with jDPG)</b>
SOE 23.1–23.1	Thu	15:00–15:45	H37	<b>Innovation Dynamics (Invited Talk Vittorio Loreto)</b>
SOE 24.1–24.6	Thu	15:45–17:15	H37	<b>Group Dynamics</b>
SOE 25.1–25.19	Thu	17:15–19:00	Poster C	<b>Poster session</b>

## Annual General Meeting of the Physics of Socio-economic Systems Division

Wed 18:20–19:20 H37