

## Dynamics and Statistical Physics Division Fachverband Dynamik und Statistische Physik (DY)

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### Overview of Invited Talks and Sessions

(Lecture rooms BH-N 243, BH-N 334, BH-N 333, BH-N 128, EB 107, MA 001; Poster A)

#### Plenary Talks

PLV IV	Mon	14:00–14:45	H 0104	<b>Fast Parametric Interactions Between Superconducting Quantum Circuits</b> — ●RAYMOND W SIMMONDS
PLV V	Tue	8:30– 9:15	H 0105	<b>Upside-Down and Inside-Out: Biomechanics of Cell Sheet Folding</b> — ●RAYMOND GOLDSTEIN
PLV XI	Thu	8:30– 9:15	H 0105	<b>Emergent properties and functions of topological magnets</b> — ●YOSHINORI TOKURA
PLV XIII	Thu	14:00–14:45	H 0104	<b>A significant raw material of the 21<sup>st</sup> century</b> — ●CLAUDIA DRAXL

#### Invited Talks

DY 4.1	Mon	9:30–10:00	BH-N 243	<b>Sounds and stubbornness of active fluids.</b> — ●DENIS BARTOLO, DELPHINE GEYER, ALEXANDRE MORIN
DY 5.1	Mon	9:30–10:00	BH-N 334	<b>Irreversibility and dissipation in molecular motors and kinetic networks</b> — ●JUAN MR PARRONDO
DY 13.1	Mon	15:00–15:30	BH-N 334	<b>Diffusive Droplet Dynamics in multicomponent fluid systems</b> — ●DETLEF LOHSE
DY 20.1	Tue	9:30–10:00	EB 107	<b>Light fields in complex media: mesoscopic physics meets wave control</b> — ●STEFAN ROTTER
DY 22.1	Tue	9:30–10:00	BH-N 243	<b>Complex Systems in Mechanical Engineering? A paradigm shift ahead.</b> — ●NORBERT HOFFMANN
DY 36.1	Wed	9:30–10:00	EB 107	<b>Computing quantum thermalization dynamics: from quantum chaos to emergent hydrodynamics</b> — ●EHUD ALTMAN
DY 36.6	Wed	11:15–11:45	EB 107	<b>Quantum Thermalization Dynamics: From Information Scrambling to Emergent Hydrodynamics</b> — ●MICHAEL KNAP
DY 40.1	Wed	9:30–10:00	BH-N 243	<b>Measurement of the functional form of Shannon entropy by partial erasure of a bit</b> — ●JOHN BECHHOEFER, MOMČILO GAVRILOV, RAPHAËL CHÉTRITE
DY 41.1	Wed	9:30–10:00	BH-N 334	<b>From bifurcations of single sliding drops to their ensemble statistics</b> — ●UWE THIELE
DY 44.1	Wed	10:00–10:30	BH-N 334	<b>Self-organisation and positioning of sub-cellular protein clusters</b> — ●SEAN M. MURRAY
DY 44.5	Wed	11:30–12:00	BH-N 334	<b>Spatial heterogeneities shape collective behavior of the signaling amoeboid cells</b> — ●AZAM GHOLAMI
DY 48.1	Wed	15:00–15:30	MA 001	<b>Network structure and dynamics: when and how multiplex really matters?</b> — ●VITO LATORA

DY 49.1	Wed	15:00–15:30	BH-N 334	<b>Nanorod fractionation via lyotropic liquid crystal formation, and its effect on phase diagram and gelation</b> — CAMILA HONORATO-RIOS, CLAUDIUS LEHR, CHRISTINA SCHÜTZ, ROLAND SANCTUARY, MIKHAIL OSIPOV, JÖRG BALLER, ●JAN LAGERWALL
DY 55.1	Thu	9:30–10:00	EB 107	<b>Nuclear and electronic dynamics in ultrafast photoinduced charge separation</b> — ●CARLO ANDREA ROZZI
DY 55.2	Thu	10:00–10:30	EB 107	<b>Theory of pump-probe spectroscopy: Ultrafast laser engineering of ordered phases and microscopic couplings</b> — ●MICHAEL SENTEF
DY 57.1	Thu	9:30–10:00	BH-N 243	<b>Anomalous Diffusion due to Crowding or External Potentials</b> — ●STEFAN U. EGELHAAF
DY 65.1	Thu	15:00–15:30	BH-N 243	<b>Towards a thermodynamics of active particles</b> — ●THOMAS SPECK
DY 77.1	Fri	9:30–10:00	BH-N 243	<b>Mean field theory of ride sharing systems</b> — ●STEPHAN HERMINGHAUS
DY 78.1	Fri	9:30–10:00	BH-N 334	<b>Emergence of long-ranged stress correlations at the liquid to glass transition</b> — MANUEL MAIER, ANNETTE ZIPPELIUS, ●MATTHIAS FUCHS

### Invited talks of the joint symposium SYMS

See SYMS for the full program of the symposium.

SYMS 1.1	Mon	15:00–15:30	H 0105	<b>Stochastic numerical algorithms: from molecular dynamics to big data analytics</b> — ●BENEDICT LEIMKUHLER
SYMS 1.2	Mon	15:30–16:00	H 0105	<b>A Generally-Applicable Machine-Learning Scheme for Materials and Molecules</b> — ●MICHELE CERIOTTI
SYMS 1.3	Mon	16:00–16:30	H 0105	<b>Girsanov reweighting for path ensembles and Markov state models</b> — ●BETTINA G. KELLER, LUCA DONATI, CARSTEN HARTMANN
SYMS 1.4	Mon	16:45–17:15	H 0105	<b>Liquid State Theory Meets Deep Learning and Molecular Informatics</b> — ●ALPHA LEE
SYMS 1.5	Mon	17:15–17:45	H 0105	<b>Computational high-throughput screening of drug-membrane thermodynamics</b> — ●TRISTAN BEREAU

### Invited talks of the joint symposium SYBS

See SYBS for the full program of the symposium.

SYBS 1.1	Tue	9:30–10:00	H 0105	<b>Bacterial collective behaviours</b> — ●KNUT DRESCHER
SYBS 1.2	Tue	10:00–10:30	H 0105	<b>Nonlinear dynamics of beating cilia and flagella: Swimming, steering, and synchronization</b> — ●BENJAMIN M. FRIEDRICH
SYBS 1.3	Tue	10:30–11:00	H 0105	<b>Learning to navigate in dynamic environments: animal behavior and artificial intelligence</b> — ●ANTONIO CELANI
SYBS 1.4	Tue	11:15–11:45	H 0105	<b>Suspensions of active colloids</b> — ●CECILE COTTIN-BIZONNE, FÉLIX GINOT, ISAAC THEURKAUFF, CHRISTOPHE YBERT
SYBS 1.5	Tue	11:45–12:15	H 0105	<b>Spontaneous chiral symmetry breaking in active fluids</b> — ●JÖRN DUNKEL

### Sessions

DY 1.1–1.3	Sun	16:00–18:30	H 0104	<b>Tutorial: Dynamics and Fluctuations in Economic and Financial Markets (joint session SOE/DY/TUT/AKjDPG)</b>
DY 2.1–2.6	Mon	9:30–12:45	H 0104	<b>Focus Session: Recent Developments in Computational Many Body Physics (joint session TT/DY)</b>
DY 3.1–3.13	Mon	9:30–13:00	C 264	<b>Complex Fluids and Colloids I (joint session CPP/DY)</b>
DY 4.1–4.1	Mon	9:30–10:00	BH-N 243	<b>Talk D. Bartolo</b>
DY 5.1–5.1	Mon	9:30–10:00	BH-N 334	<b>Talk J. Parrondo</b>
DY 6.1–6.10	Mon	10:00–12:45	EB 107	<b>Dynamics in many-body systems: interference, equilibration and localization I (joint session DY/TT)</b>
DY 7.1–7.7	Mon	10:00–11:45	BH-N 128	<b>Modeling and Data Analysis</b>
DY 8.1–8.12	Mon	10:00–13:15	BH-N 243	<b>Active Matter I (joint session DY/PP/BP)</b>
DY 9.1–9.13	Mon	10:00–13:30	BH-N 334	<b>Statistical Physics far from Thermal Equilibrium</b>
DY 10.1–10.10	Mon	10:00–12:45	BH-N 333	<b>Statistical Physics I (General)</b>
DY 11.1–11.4	Mon	12:00–13:00	BH-N 128	<b>Energy Systems (joint session DY/SOE)</b>

DY 12.1–12.7	Mon	15:00–17:00	H 2013	<b>Focus Session: Statistical Physics-Based Methods in Molecular Evolution - organized by Alexander Schug and Martin Weigt (joint session BP/DY)</b>
DY 13.1–13.1	Mon	15:00–15:30	BH-N 334	<b>Talk D. Lohse</b>
DY 14.1–14.9	Mon	15:30–17:45	EB 107	<b>Dynamics in many-body systems: interference, equilibration and localization II (joint session DY/TT)</b>
DY 15.1–15.8	Mon	15:30–17:30	BH-N 128	<b>Nonlinear Dynamics, Synchronization, Chaos I</b>
DY 16.1–16.12	Mon	15:30–18:45	BH-N 243	<b>Active Matter II (joint session DY/CPP/BP)</b>
DY 17.1–17.14	Mon	15:30–19:15	BH-N 334	<b>Focus: Droplets (joint session DY/CPP)</b>
DY 18.1–18.6	Mon	15:30–17:00	BH-N 333	<b>Critical Phenomena and Phase Transitions</b>
DY 19.1–19.3	Mon	17:30–18:15	BH-N 333	<b>Extreme Events</b>
DY 20.1–20.1	Tue	9:30–10:00	EB 107	<b>Talk S. Rotter</b>
DY 21.1–21.8	Tue	9:30–11:45	C 264	<b>Complex Fluids and Colloids II (joint session CPP/DY)</b>
DY 22.1–22.1	Tue	9:30–10:00	BH-N 243	<b>Talk H. Hoffmann</b>
DY 23.1–23.8	Tue	10:00–12:15	EB 107	<b>Quantum Chaos</b>
DY 24.1–24.4	Tue	10:00–11:00	BH-N 128	<b>Complex Systems</b>
DY 25.1–25.11	Tue	10:00–13:00	BH-N 243	<b>Statistical Physics II (General)</b>
DY 26.1–26.6	Tue	11:00–12:30	BH-N 334	<b>Condensed Matter Simulations augmented by Advanced Statistical Methodologies I (joint session DY/CPP)</b>
DY 27.1–27.6	Tue	11:15–12:45	BH-N 128	<b>Microfluidics</b>
DY 28.1–28.3	Tue	12:30–13:15	MA 001	<b>Evolutionary Game Theory (joint SOE/BP/DY) (joint session SOE/DY/BP)</b>
DY 29.1–29.7	Tue	14:00–15:45	EB 107	<b>Particulate Matter: From microscopic interactions to collective motion (joint session DY/CPP)</b>
DY 30.1–30.7	Tue	14:00–16:00	PC 203	<b>Modeling and Simulation of Soft Matter I (joint session CPP/DY)</b>
DY 31.1–31.5	Tue	14:00–15:15	BH-N 128	<b>Condensed Matter Simulations augmented by Advanced Statistical Methodologies II (joint session DY/CPP)</b>
DY 32.1–32.7	Tue	14:00–15:45	BH-N 243	<b>Microswimmers I (joint session DY/BP/CPP)</b>
DY 33.1–33.8	Tue	14:00–16:00	BH-N 334	<b>Delay and Feedback Dynamics</b>
DY 34.1–34.5	Tue	14:00–15:15	BH-N 333	<b>Nonlinear Stochastic Systems</b>
DY 35.1–35.12	Wed	9:30–13:00	H 3010	<b>Nonequilibrium Quantum Many-Body Systems I (joint session TT/DY)</b>
DY 36.1–36.8	Wed	9:30–12:15	EB 107	<b>Focus: Chaos and Correlation in Quantum Matter (joint session DY/TT)</b>
DY 37.1–37.11	Wed	9:30–12:15	MA 001	<b>Networks: From Topology to Dynamics (joint session SOE/DY/BP) (joint session SOE/CPP/BP/DY)</b>
DY 38.1–38.8	Wed	9:30–12:00	C 230	<b>Modeling and Simulation of Soft Matter II (joint session CPP/DY)</b>
DY 39.1–39.12	Wed	9:30–13:00	C 264	<b>Wetting, Microfluidics and Confined Liquids I (joint session CPP/DY)</b>
DY 40.1–40.1	Wed	9:30–10:00	BH-N 243	<b>Talk J. Bechhoefer</b>
DY 41.1–41.1	Wed	9:30–10:00	BH-N 334	<b>Talk U. Thiele</b>
DY 42.1–42.10	Wed	10:00–12:45	BH-N 128	<b>Turbulence</b>
DY 43.1–43.13	Wed	10:00–13:45	BH-N 243	<b>Stochastic thermodynamics and information processing</b>
DY 44.1–44.9	Wed	10:00–13:00	BH-N 334	<b>Pattern Formation I</b>
DY 45.1–45.13	Wed	10:00–13:30	BH-N 333	<b>Statistical Physics in Biological Systems (joint session DY/BP)</b>
DY 46.1–46.9	Wed	15:00–17:30	H 1028	<b>Microswimmers (joint session BP/CPP/DY)</b>
DY 47.1–47.12	Wed	15:00–18:30	H 3010	<b>Nonequilibrium Quantum Many-Body Systems II (joint session TT/DY)</b>
DY 48.1–48.1	Wed	15:00–15:30	MA 001	<b>Talk V. Latora (joint session DY/SOE)</b>
DY 49.1–49.1	Wed	15:00–15:30	BH-N 334	<b>Talk J. Lagerwall</b>
DY 50.1–50.10	Wed	15:30–18:15	EB 107	<b>Quantum Dynamics, Decoherence and Quantum Information (joint session DY/TT)</b>
DY 51.1–51.9	Wed	15:30–18:00	MA 001	<b>Networks: From Topology to Dynamics (joint session DY/SOE)</b>
DY 52.1–52.12	Wed	15:30–18:45	BH-N 243	<b>Active Matter III (joint session DY/CPP/BP)</b>
DY 53.1–53.14	Wed	15:30–19:15	BH-N 334	<b>Complex Fluids and Soft Matter (joint session DY/ CPP / BP)</b>

DY 54.1–54.12	Thu	9:30–13:00	H 2013	<b>Statistical Physics of Biological Systems I (joint session BP/DY)</b>
DY 55.1–55.6	Thu	9:30–11:30	EB 107	<b>Focus: Emergent phenomena in driven quantum many-body systems (joint session DY/TT)</b>
DY 56.1–56.9	Thu	9:30–13:15	MA 001	<b>Complex Contagion Phenomena I (Focus Session, joint SOE/DY/BP/SNPD) (joint session SOE/DY/BP)</b>
DY 57.1–57.1	Thu	9:30–10:00	BH-N 243	<b>Talk S. Egelhaaf</b>
DY 58.1–58.11	Thu	10:00–13:00	BH-N 128	<b>Chimera states: symmetry-breaking in dynamical networks (joint session DY/SOE)</b>
DY 59.1–59.12	Thu	10:00–13:15	BH-N 243	<b>Microswimmers II (joint session DY/PPP/BP)</b>
DY 60.1–60.12	Thu	10:00–13:15	BH-N 334	<b>Anomalous Diffusion (joint session DY/BP)</b>
DY 61.1–61.11	Thu	10:00–13:00	BH-N 333	<b>Granular Matter / Contact Dynamics (joint session DY/PPP)</b>
DY 62.1–62.3	Thu	12:00–12:45	EB 107	<b>Coherent Quantum Dynamics (joint session DY/TT)</b>
DY 63.1–63.8	Thu	15:00–17:15	H 2013	<b>Statistical Physics of Biological Systems II (joint session BP/DY)</b>
DY 64.1–64.5	Thu	15:00–16:15	MA 001	<b>Traffic Dynamics, Urban and Regional Systems (joint session SOE/DY)</b>
DY 65.1–65.1	Thu	15:00–15:30	BH-N 243	<b>Talk T. Speck</b>
DY 66.1–66.20	Thu	15:30–18:00	Poster A	<b>Poster: Stat. Phys. (Gen., Critical Phen., Biol.)</b>
DY 67.1–67.17	Thu	15:30–18:00	Poster A	<b>Poster: Active Matter, Microswimmers</b>
DY 68.1–68.23	Thu	15:30–18:00	Poster A	<b>Poster: Complex Fluids, Glasses, Granular</b>
DY 69.1–69.18	Thu	15:30–18:00	Poster A	<b>Poster: Quantum Systems</b>
DY 70.1–70.25	Thu	15:30–18:00	Poster A	<b>Poster: Flows, Patterns, Delay, Reaction Diffusion</b>
DY 71.1–71.15	Thu	15:30–18:00	Poster A	<b>Poster: Noneq. Stat. Phys., Stoch. Thermo, Brownian Dyn.</b>
DY 72.1–72.16	Thu	15:30–18:00	Poster A	<b>Poster: Stoch. and Nonl. Dy., Modeling, Compl. Sys.</b>
DY 73.1–73.11	Thu	15:30–18:00	Poster A	<b>Poster: Networks, Chimera, Energy Systems</b>
DY 74	Thu	18:15–18:45	BH-N 243	<b>Annual General Meeting</b>
DY 75.1–75.10	Fri	9:30–12:00	H 1058	<b>Active Matter (joint session BP/PPP/DY)</b>
DY 76.1–76.13	Fri	9:30–13:15	MA 001	<b>Complex Contagion Phenomena II (Focus Session, joint SOE/DY/BP/SNPD) (joint session SOE/DY/BP)</b>
DY 77.1–77.1	Fri	9:30–10:00	BH-N 243	<b>Talk S. Herminghaus</b>
DY 78.1–78.1	Fri	9:30–10:00	BH-N 334	<b>Talk M. Fuchs</b>
DY 79.1–79.8	Fri	10:00–12:15	EB 107	<b>The Physics of Power-Grids – Fluctuations, Synchronization and Network Structures (joint session DY/SOE)</b>
DY 80.1–80.5	Fri	10:00–11:15	BH-N 128	<b>Brownian Motion and Transport</b>
DY 81.1–81.9	Fri	10:00–12:30	BH-N 243	<b>Nonlinear Dynamics, Synchronization, Chaos II</b>
DY 82.1–82.10	Fri	10:00–12:45	BH-N 334	<b>Glasses and Glass Transition (joint session DY/PPP)</b>
DY 83.1–83.8	Fri	10:00–12:15	BH-N 333	<b>Pattern Formation II</b>

## Annual General Meeting of the Dynamics and Statistical Physics Division

Donnerstag, 15. März 18:15–19:15 BH-N 243

- Bericht
- Verschiedenes