

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

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### Overview of Invited Talks and Sessions

(Lecture Rooms H39, H44, H46, H47, and H48; Poster C)

#### Invited Talks

DY 4.1	Mon	15:00–15:30	H47	<b>Environmental Superstatistics</b> — ●CHRISTIAN BECK
DY 4.2	Mon	15:30–16:00	H47	<b>Statistical decomposition of atmospheric turbulence</b> — ●MATTHIAS WÄCHTER, ALLAN MORALES, TANJA MÜCKE, NICO REINKE, JOACHIM PEINKE
DY 4.3	Mon	16:00–16:30	H47	<b>Quantitative approaches to the statistics of extreme events in atmospheric dynamics</b> — ●HOLGER KANTZ, JOCHEN BROECKER, LEO GRANGER, JULIA GUNDERMANN
DY 4.4	Mon	16:30–17:00	H47	<b>Climate as a Problem of Non-equilibrium Statistical Mechanics</b> — ●VALERIO LUCARINI
DY 14.1	Tue	15:00–15:30	H44	<b>When the beat goes off</b> — ●HOLGER HENNIG
DY 14.2	Tue	15:30–16:00	H44	<b>Chimera states and the transition from spatial coherence to incoherence</b> — ●PHILIPP HÖVEL
DY 16.1	Wed	9:30–10:00	H46	<b>Dynamics of thin sheets: Crumpling, wrinkling and cracking</b> — ●PASCAL DAMMAN
DY 18.10	Wed	12:00–12:30	H48	<b>The physics of information: from Maxwell’s demon to Landauer</b> — ●ERIC LUTZ
DY 20.1	Wed	15:00–15:30	H44	<b>Energiewende 2.0 * the transformation of energy systems in uncertain times</b> — ●JÜRGEN-FR. HAKE, WOLFGANG FISCHER
DY 20.2	Wed	15:30–16:00	H44	<b>Basin Stability and its Consequences for Power Grids</b> — ●JÜRGEN KURTHS, PETER MENCK, PENG JI
DY 20.3	Wed	16:00–16:30	H44	<b>Requirements and Concepts for Self-Organized Agent-Based Control in Smart Distribution Grids</b> — ●ASTRID NIESSE
DY 20.4	Wed	16:30–17:00	H44	<b>A 100% renewable power system in Europe</b> — ●MARTIN GREINER, SARAH BECKER, ROLANDO RODRIGUEZ, TUE JENSEN, TIMO ZEYER, ANDERS SOENDERGAARD, GORM ANDRESEN
DY 22.6	Wed	16:30–17:00	H48	<b>Entropy based approaches to transport</b> — ●THOMAS CHRISTEN
DY 26.1	Thu	9:30–10:00	H47	<b>Genuine quantum interference in interacting bosonic fields: The semiclassical propagator in Fock space</b> — ●JUAN DIEGO URBINA, THOMAS ENGL, ARTURO ARGUELLES, JULIEN DUJARDIN, PETER SCHLAGHECK, KLAUS RICHTER
DY 29.1	Thu	15:00–15:30	H44	<b>Transitions in rotating Rayleigh-Bénard convection at high Rayleigh numbers</b> — ●ANDREAS TILGNER
DY 29.2	Thu	15:30–16:00	H44	<b>Connecting Statistics and Dynamics of Turbulent Rayleigh–Bénard Convection</b> — ●JOHANNES LÜLFF, MICHAEL WILCZEK, RUDOLF FRIEDRICH, RICHARD STEVENS, DETLEF LOHSE, KLAUS PETSCHER, ULRICH HANSEN
DY 29.3	Thu	16:00–16:30	H44	<b>Temperature statistics near the ultimate state of turbulent Rayleigh–Bénard convection *</b> — ●XIAOZHOU HE, DENNIS VAN GILS, EBERHARD BODENSCHATZ, GUENTER AHLERS
DY 29.4	Thu	16:30–17:00	H44	<b>Cloud formation studies in moist Rayleigh-Bénard convection</b> — ●JÖRG SCHUMACHER

### Invited talks of the joint symposium SYSC

See SYSC for the full program of the symposium.

SYSC 1.1	Tue	9:30–10:00	H1	<b>Exploring the Physics of Superconducting Qubits Strongly Coupled to Microwave Frequency Photons</b> — ●ANDREAS WALLRAFF
SYSC 1.2	Tue	10:00–10:30	H1	<b>Hybrid Quantum Circuit with a Superconducting Qubit Coupled to an Electron Spin Ensemble</b> — ●YUIMARU KUBO, CECILE GREZES, IGOR DINIZ, JUN-ICHI ISOYA, VINCENT JACQUES, ANAIS DREAU, JEAN-FRANÇOIS ROCH, ALEXIA AUFFEVE, DENIS VION, DANIEL ESTEVE, PATRICE BERTET
SYSC 1.3	Tue	10:30–11:00	H1	<b>Hybrid Quantum Systems with Rare-Earth Ion Spin Ensemble</b> — ●PAVEL BUSHEV
SYSC 1.4	Tue	11:00–11:30	H1	<b>Quantum Coherent Coupling between a Mechanical Oscillator and an Optical Mode</b> — EWOLD VERHAGEN, DALZIEL WILSON, VIVISHEK SUDHIR, NICOLAS PIRO, ALBERT SCHLIESSER, ●TOBIAS KIPPENBERG
SYSC 1.5	Tue	11:30–12:00	H1	<b>Exploring Quantum Light-Matter Interactions of Quantum Dots in Photonic Crystal Nanostructures</b> — ●JONATHAN FINLEY, ARNE LAUCHT, MICHAEL KANIBER, STEFAN LICHTMANNECKER, THORSTEN REICHERT, GUENTHER REITHMAIER, FABRICE LAUSSY, ULRICH HOHENEESTER

### Invited talks of the joint symposium SYMM

See SYMM for the full program of the symposium.

SYMM 1.1	Thu	9:30–10:00	H1	<b>Challenges for first-principles based computation of properties of oxide materials</b> — ●KARSTEN ALBE
SYMM 1.2	Thu	10:00–10:30	H1	<b>Deformation and Fracture of Solids: Tough Nuts at Atomic and Continuum Scales</b> — ●PETER GUMBSCH, MATOUS MROVEC, KINSHUK SRIVASTAVA, DANIEL WEYGAND
SYMM 1.3	Thu	10:30–11:00	H1	<b>Crucial Issues and Future Directions of Through-Process Modeling</b> — ●GUENTER GOTTSTEIN
SYMM 1.4	Thu	11:00–11:30	H1	<b>Adaptive Resolution Simulations for Soft Matter: Applications and New Developments</b> — ●KURT KREMER
SYMM 1.5	Thu	11:30–12:00	H1	<b>Materials by design</b> — ●MARKUS BUEHLER

### Sessions

DY 1.1–1.10	Mon	9:30–12:15	H39	<b>Quantum Dynamics, Decoherence and Quantum Information I</b>
DY 2.1–2.8	Mon	9:30–11:30	H47	<b>Statistical Physics in Biological Systems I (joint with BP)</b>
DY 3.1–3.7	Mon	15:00–17:00	H39	<b>Quantum Dynamics, Decoherence and Quantum Information II</b>
DY 4.1–4.6	Mon	15:00–17:30	H47	<b>Focus Session: Atmospheric and Climate Complexity</b>
DY 5.1–5.5	Mon	15:00–16:15	H48	<b>Reaction-Diffusion Systems</b>
DY 6.1–6.9	Mon	15:00–17:30	H34	<b>Glasses and Glass Transition (joint session DY/CPP) I</b>
DY 7.1–7.25	Mon	17:30–19:30	Poster C	<b>Poster I</b>
DY 8.1–8.15	Mon	17:30–19:30	Poster C	<b>Poster I: Glasses and Glass Transition (joint session DY/DF/CPP)</b>
DY 9.1–9.24	Mon	17:30–19:30	Poster B2	<b>Poster I: Statistical Physics in Biological Systems (joint with BP)</b>
DY 10.1–10.11	Tue	9:30–12:30	H46	<b>Glasses (joint session DY/DF/CPP)</b>
DY 11.1–11.8	Tue	9:30–11:45	H47	<b>Statistics and Dynamics of/on Networks (joint session BP/DY/SOE)</b>
DY 12.1–12.12	Tue	9:30–12:45	H48	<b>Nonlinear Dynamics, Synchronization and Chaos I</b>
DY 13.1–13.5	Tue	9:30–12:00	H1	<b>Symposium: Strong Coupling in Solid State Quantum Systems (SYSC)</b>
DY 14.1–14.2	Tue	15:00–16:00	H44	<b>Nonlinear Dynamics, Synchronization and Chaos II</b>
DY 15.1–15.4	Tue	15:00–16:00	H37	<b>Evolutionary Game Theory (joint session BP/DY/SOE)</b>
DY 16.1–16.9	Wed	9:30–12:15	H46	<b>Pattern Formation</b>
DY 17.1–17.8	Wed	10:00–12:00	H47	<b>Soft matter</b>
DY 18.1–18.10	Wed	9:30–12:30	H48	<b>Statistical Physics Far from Thermal Equilibrium</b>

DY 19.1–19.9	Wed	9:30–12:30	H37	<b>Focus Session: Dynamics of Adaptive Networks (joint session BP/DY/SOE)</b>
DY 20.1–20.6	Wed	15:00–17:30	H44	<b>Focus Session: Modern Power Grid, Nonlinear Dynamics and Self-Organization (joint with SOE)</b>
DY 21.1–21.12	Wed	15:00–18:15	H47	<b>Granular Matter / Contact Dynamics</b>
DY 22.1–22.12	Wed	15:00–18:30	H48	<b>Statistical Physics (general)</b>
DY 23.1–23.9	Wed	15:00–17:30	H43	<b>Statistical Physics in Biological Systems II (joint with BP)</b>
DY 24.1–24.5	Wed	15:45–17:00	H37	<b>Networks, From Topology to Dynamics (joint session BP/DY/SOE)</b>
DY 25.1–25.12	Thu	9:30–12:45	H46	<b>Critical Phenomena and Phase Transitions</b>
DY 26.1–26.8	Thu	9:30–12:00	H47	<b>Quantum Chaos I</b>
DY 27.1–27.7	Thu	9:30–11:30	H48	<b>Fluid Dynamics and Turbulence</b>
DY 28.1–28.5	Thu	9:30–12:00	H1	<b>Symposium: Computational Challenges in Scale-Bridging Modeling of Materials (SYMM)</b>
DY 29.1–29.4	Thu	15:00–17:00	H44	<b>Focus Session: Rayleigh Benard System and Convective Turbulence</b>
DY 30.1–30.5	Thu	15:00–16:15	H47	<b>Quantum Chaos II</b>
DY 31.1–31.7	Thu	15:00–16:45	H48	<b>Anomalous Diffusion</b>
DY 32.1–32.10	Thu	15:00–17:30	H46	<b>Statistical Physics in Biological Systems III (joint with BP)</b>
DY 33.1–33.63	Thu	17:00–19:00	Poster C	<b>Poster II</b>
DY 34.1–34.1	Thu	19:00–20:00	H47	<b>Annual General Meeting of DY</b>
DY 35.1–35.8	Fri	9:30–11:30	H48	<b>Brownian Motion and Transport</b>
DY 36.1–36.12	Fri	9:30–12:45	H44	<b>Statistical Physics in Biological Systems IV (joint with BP)</b>

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

Donnerstag 19:00–20:00 H47

- Bericht
- Verschiedenes