

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

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Overview of Invited Talks and Sessions

(lecture rooms HÜL 386, ZEU 118, ZEU 255 and WIL B321; Poster P1A and P1B)

Plenary Talk

The plenary talk related to the division DY by Prof. P. Hänggi takes place Monday, 8:30, HSZ 01. See the plenary section for title and abstract.

Prize Talk

The prize talk (Gentner-Kastler-Prize) by Prof. T. Geisel takes place Tuesday, 13:00, HSZ 01. See the plenary section for title and abstract.

Invited Talks

DY 1.1	Mon	10:15–10:45	HÜL 386	Heat transfer on the nanometer scale — Near-field thermal scanning microscopy — •ACHIM KITTEL
DY 4.1	Mon	14:00–14:30	HÜL 386	Mechanisms of tissue maintenance: a laboratory for statistical physics — •BENJAMIN SIMONS
DY 7.1	Tue	9:30–10:00	HÜL 386	Statistical Mechanics of systems with long range interactions. — •DAVID MUKAMEL
DY 10.1	Tue	14:00–14:30	HÜL 386	Self-Dynamics of a Slender Rod — •THOMAS FRANOSCH
DY 14.1	Wed	9:45–10:15	HÜL 386	Turbulent convective transport - news and challenges — •SIEGFRIED GROSSMANN
DY 14.5	Wed	12:00–12:30	HÜL 386	Towards a quantum Church-Turing Theorem — •REINHARD F. WERNER
DY 15.1	Wed	14:00–14:30	HÜL 386	Time-reversed waves and super-resolution — •MATHIAS FINK
DY 20.1	Thu	9:30–10:00	HÜL 386	Magnetic granular matter: from lattices to self-assembled swimmers — •IGOR ARANSON, ALEXEY SNEZHKO, MAXIM BELKIN, WAI KWOK
DY 23.1	Thu	14:00–14:30	HÜL 386	Work and Fluctuation Theorems for quantum systems — •PETER TALKNER

Focused Session "50 years DY: Trends in dynamics and statistical physics"

Organization: H. Kantz (MPIPKS Dresden), K. Richter (Universität Regensburg)
(Opening address at 9:30, HÜL 386.)

DY 14.1	Wed	9:45–10:15	HÜL 386	Turbulent convective transport - news and challenges — •SIEGFRIED GROSSMANN
DY 14.2	Wed	10:15–10:45	HÜL 386	What's up in quantum chaos? — •ROLAND KETZMERICK
DY 14.3	Wed	11:00–11:30	HÜL 386	Non-equilibrium work and fluctuation theorems — •ANDREAS ENGEL
DY 14.4	Wed	11:30–12:00	HÜL 386	Computational Statistical Physics — •WOLFHARD JANKE
DY 14.5	Wed	12:00–12:30	HÜL 386	Towards a quantum Church-Turing Theorem — •REINHARD F. WERNER

Focused Session "Pattern formation in colloidal and granular systems"

Organization: M. Schröter, S. Herminghaus (MPIDS Göttingen), H. Löwen (Heinrich-Heine-Universität Düsseldorf)

DY 20.1	Thu	9:30–10:00	HÜL 386	Magnetic granular matter: from lattices to self-assembled swimmers — ●IGOR ARANSON, ALEXEY SNEZHKO, MAXIM BELKIN, WAI KWOK
DY 20.2	Thu	10:00–10:30	HÜL 386	Non-equilibrium aggregates in confined systems of self-propelling colloidal rods — ●RIK WENSINK, HARTMUT LÖWEN
DY 20.3	Thu	10:30–11:00	HÜL 386	Beyond Faraday’s crispations: nonlinear patterns of shaken granular material — ●CHRISTOF KRUELLE
DY 20.4	Thu	11:15–11:45	HÜL 386	Archimedean-like Tilings on Decagonal Quasicrystalline Surfaces — ●CLEMENS BECHINGER, JULES MIKHAEL, LAURENT HELDEN
DY 20.5	Thu	11:45–12:15	HÜL 386	Injection in a confined granular suspension: from the Saffman-Taylor fingering instability up to flow inside a weakly jammed granular matrix. — CHRISTOPHE CHEVALIER, ANKE LINDNER, OEISTEIN JOHNSON, ●ERIC CLEMENT
DY 20.6	Thu	12:15–12:45	HÜL 386	Pattern Formation in Colloids Induced by Shear Flow and Electric Fields. — ●JAN DHONT, KYONGOK KANG, PAVLIK LETTINGA

Invited Talks of joint symposia with other divisions

Symposium: "Anderson localization in nonlinear and many-body-systems (SYAL)"

See SYAL for the full program of the symposium

SYAL 1.1	Mon	14:00–14:30	BAR SCHÖ	Delocalization by nonlinearity and interactions in systems with disorder — ●DIMA SHEPELYANSKY
SYAL 1.2	Mon	14:30–15:00	BAR SCHÖ	Absence of Diffusion in a Fröhlich-Spencer-Wayne model for nonlinear random systems — ●SERGE AUBRY
SYAL 1.3	Mon	15:00–15:30	BAR SCHÖ	Anderson localization and nonlinearity in disordered photonic lattices — ●YARON SILBERBERG
SYAL 1.4	Mon	15:30–16:00	BAR SCHÖ	Many Body Localization — ●BORIS ALTSHULER
SYAL 1.5	Mon	16:00–16:30	BAR SCHÖ	Localized states and interaction induced delocalization in Bose gases with quenched disorder — ●THOMAS NATTERMANN
SYAL 1.6	Mon	16:30–17:00	BAR SCHÖ	Single-particle and many-body Anderson localizations with Bose-Einstein condensates — ●LAURENT SANCHEZ-PALENCIA

Symposium: "Transport in graphene (SYTG)"

See SYTG for the full program of the symposium

SYTG 1.1	Tue	14:00–14:30	BAR SCHÖ	The nature of localization in graphene under quantum Hall conditions — ●JURGEN SMET
SYTG 1.2	Tue	14:30–15:00	BAR SCHÖ	Electronic Transport in Graphene Nanostructures — ●THOMAS IHN, CHRISTOPH STAMPFER, JOHANNES GÜTTINGER, FRANCOISE MOLITOR, STEPHAN SCHNEZ, ARNHILD JACOBSEN, KLAUS ENSSLIN
SYTG 1.3	Tue	15:00–15:30	BAR SCHÖ	Spins and valley-spins in graphene nanostructures — ●INANC ADAGIDELI
SYTG 1.4	Tue	15:30–16:00	BAR SCHÖ	Theory of ballistic transport in graphene — ●BJOERN TRAUZETTEL

Symposium: "Self-organizing surfaces and interfaces (SYSO)"

See SYSO for the full program of the symposium

SYSO 1.1	Wed	14:00–14:30	BAR SCHÖ	Pattern formation in epitaxial growth and ion beam erosion — ●THOMAS MICHELY
SYSO 1.2	Wed	14:30–15:00	BAR SCHÖ	Patterns and Pathways in Far-from-equilibrium Nanoparticle Assemblies — ●PHILIP MORIARTY, ANDREW STANNARD, EMMANUELLE PAULIAC-VAUJOUR, MATTHEW BLUNT, CHRIS MARTIN, IOAN VANCEA, UWE THIELE
SYSO 1.3	Wed	15:00–15:30	BAR SCHÖ	Block-Copolymer Derived Inorganic Functional Materials — ●ULLRICH STEINER

SYSO 2.1	Wed	15:45–16:15	BAR SCHÖ	Crystallisation of polymers at surfaces and in thin films — •GÜNTER REITER
SYSO 2.2	Wed	16:15–16:45	BAR SCHÖ	Active Organisation of Cell Surface Molecules by Cortical Actin — KRIPA GOWRISHANKAR, DEBANJAN GOSWAMI, SUBHASRI GHOSH, ABHISHEK CHAUDHURI, BHASWATI BHATTACHARYA, SATYAJIT MAYOR, •MADAN RAO
SYSO 2.3	Wed	16:45–17:15	BAR SCHÖ	Phase Behaviour and Dynamics in Lipid Mixtures — •PETER OLMSTED

Symposium: "Data analysis in complex systems (SYCS)"

See SYCS for the full program of the symposium

SYCS 1.1	Fri	10:15–11:00	BAR SCHÖ	Eat, Drink, and Be Merry: The Spread of Health Phenomena in Complex, Longitudinally Resolved Social Networks — •NICHOLAS CHRISTAKIS
SYCS 1.2	Fri	11:00–11:30	BAR SCHÖ	Transport efficiency and resilience in mycelial networks — •MARK FRICKER, DANIEL BEBBER, LYNNE BODDY
SYCS 1.3	Fri	11:30–12:00	BAR SCHÖ	From genetic variability between species to the inference of protein-protein interactions — •MARTIN WEIGT, ROBERT A. WHITE, HENDRIK SZURMANT, JAMES A. HOCH, TERRENCE HWA
SYCS 1.4	Fri	12:00–12:30	BAR SCHÖ	Clustering and multiscale structure of graphs — •BOAZ NADLER
SYCS 1.5	Fri	12:30–13:00	BAR SCHÖ	Clustering, chance, and statistical mechanics — MARTA LUKSZA, MICHAEL LÄSSIG, •JOHANNES BERG
SYCS 1.6	Fri	13:00–13:30	BAR SCHÖ	Physics of recommendation mechanisms — •YI-CHENG ZHANG

Sessions

DY 1.1–1.9	Mon	10:15–13:00	HÜL 386	Statistical physics I (general)
DY 2.1–2.8	Mon	11:00–13:00	ZEU 255	Statistical physics in biological systems I (joint session DY/BP)
DY 3.1–3.8	Mon	11:00–13:00	ZEU 118	Nonlinear dynamics, synchronization and chaos I
DY 4.1–4.9	Mon	14:00–16:45	HÜL 386	Statistical physics in biological systems II (joint session DY/BP)
DY 5.1–5.8	Mon	14:45–16:45	ZEU 255	Soft matter
DY 6.1–6.8	Mon	14:45–16:45	ZEU 118	Critical phenomena and phase transitions
DY 7.1–7.12	Tue	9:30–13:00	HÜL 386	Statistical physics II (general)
DY 8.1–8.8	Tue	10:00–12:40	WIL B321	Glasses I (joint session DY/DF)
DY 9.1–9.9	Tue	10:15–12:45	ZEU 255	Nonlinear dynamics, synchronization and chaos II
DY 10.1–10.7	Tue	14:00–16:00	HÜL 386	Brownian motion and transport I
DY 11.1–11.6	Tue	14:00–16:00	WIL B321	Glasses II (joint session DY/DF)
DY 12.1–12.48	Tue	14:30–16:30	P1A	Poster I
DY 13.1–13.4	Tue	14:45–15:45	ZEU 255	Statistical physics III (general)
DY 14.1–14.5	Wed	9:30–12:30	HÜL 386	Focused Session: 50 years DY: Trends in dynamics and statistical physics
DY 15.1–15.7	Wed	14:00–16:00	HÜL 386	Quantum chaos I
DY 16.1–16.12	Wed	14:45–18:00	ZEU 255	Fluid dynamics I
DY 17.1–17.8	Wed	14:45–16:45	ZEU 118	Reaction-diffusion systems
DY 18.1–18.9	Wed	16:15–18:45	HÜL 386	Granular matter / contact dynamics
DY 19.1–19.4	Wed	17:00–18:00	ZEU 118	Quantum dynamics, decoherence and quantum information
DY 20.1–20.6	Thu	9:30–12:45	HÜL 386	Focused Session: Pattern formation in colloidal and granular systems
DY 21.1–21.10	Thu	10:15–13:00	ZEU 255	Quantum chaos II
DY 22.1–22.10	Thu	10:15–13:00	ZEU 118	Brownian motion and transport II
DY 23.1–23.7	Thu	14:00–16:00	HÜL 386	Statistical physics far from thermal equilibrium
DY 24.1–24.8	Thu	14:45–16:45	ZEU 255	Pattern formation in colloidal and granular systems I
DY 25.1–25.7	Thu	14:45–16:30	ZEU 118	Fluid dynamics II
DY 26.1–26.40	Thu	16:00–18:00	P1A	Poster II
DY 27.1–27.24	Thu	16:00–18:00	P1B	Poster II
DY 28.1–28.11	Fri	10:15–13:15	HÜL 386	Pattern formation in colloidal and granular systems II

DY 29.1–29.11	Fri	10:15–13:15	ZEU 255	Statistical physics of complex networks
DY 30.1–30.12	Fri	10:15–13:15	ZEU 118	Nonlinear stochastic systems

Annual General Meeting of the Dynamics and Statistical Physics Division

Thursday 18:30–19:30 HÜL 386

Tagesordnung:

- Bericht des Fachverbandsleiters
- Tagungsnachlese
- Wahl eines neuen Fachverbandsleiters und Stellvertreters
- Verschiedenes