

Biological Physics Division Fachverband Biologische Physik (BP)

Helmut Grubmüller
Max-Planck-Institut für
Biophysikalische Chemie
Theoretische und
Computergestützte Biophysik
Am Fassberg 11
D-37077 Göttingen
hgrubmu@gwdg.de

Sarah Köster
Georg-August-Universität Göttingen
Institut für Röntgenphysik
Friedrich-Hund-Platz 1
D-37077 Göttingen
sarah.koester@phys.uni-
goettingen.de

Matthias Rief
Lehrstuhl für Biophysik E22
Physikdepartment der Technischen
Universität München
James-Franck-Straße
D-85748 Garching
mrief@ph.tum.de

Overview of Invited Talks and Sessions

(Lecture rooms ZEU 250, HÜL 386, and SCH A251; Poster P1A, P2-EG, P2-OG1 and P3)

Plenary Talk of BP

PV XIII	Wed	8:30– 9:15	HSZ 01	Characterization of Biological Photoreceptors in Space and Time — •PETER HEGEMANN
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Invited Talks

BP 1.1	Mon	9:30–10:00	ZEU 250	Conformational Transitions in the Presence of Solvent and Internal Memory Effects — •ROLAND NETZ, JULIAN KAPPLER, JAN DALDROP, BARTOSZ KOWALIK, FLORIAN BRÜNIC
BP 2.1	Mon	9:30–10:00	HÜL 386	Visualization and Manipulation of the Invisible — •HEINRICH LEONHARDT
BP 3.1	Mon	9:30–10:00	SCH A251	Cilia-based transport networks — •EBERHARD BODENSCHATZ
BP 4.1	Mon	15:00–15:30	ZEU 250	Antibiotic-induced gene expression noise and cross-protection at the single-cell level — •TOBIAS BOLLENBACH
BP 5.1	Mon	15:00–15:30	HÜL 386	Metal Induced Energy Transfer — •JÖRG ENDERLEIN
BP 6.1	Mon	15:00–15:30	SCH A251	Quantifying and modelling active motion in biological systems — •TIMO BETZ
BP 13.1	Tue	9:30–10:00	HÜL 386	X-ray imaging of Cells and Tissues — •TIM SALDITT
BP 14.1	Tue	9:30–10:00	SCH A251	Laminar mixing in tubular networks of plasmodial slime moulds — •MARCUS HAUSER
BP 16.1	Tue	11:30–12:00	HÜL 386	Control on the nanoscale with DNA origami — •TIM LIEDL
BP 38.1	Wed	9:30–10:00	HÜL 386	Simulations move toward the understanding of protein-mediated membrane fusion — •HERRE JELGER RISSELADA
BP 39.5	Wed	11:15–11:45	SCH A251	Navigating the cytoskeleton: new tools to dissect and direct intracellular transport — •LUKAS KAPITEIN
BP 42.1	Wed	15:00–15:30	ZEU 250	Linking AMPA receptor nanoscale organization and function at excitatory synapses — •DANIEL CHOQUET
BP 43.1	Wed	15:00–15:30	HÜL 386	Diffusive anchorage of molecular motors allows for adaptive force generation — •STEFAN DIEZ
BP 47.1	Thu	9:30–10:00	ZEU 250	Mechanotransduction in Collective Cell Migration — •JOACHIM SPATZ
BP 48.1	Thu	9:30–10:00	HÜL 386	Shaping membranes: ENTH activity as a function of membrane tension — •CLAUDIA STEINEM, MARTIN GLEISNER, BENJAMIN KROPPEN, NELLI TESKE, ANDREAS JANSHOFF, MICHAEL MEINECKE
BP 49.1	Thu	9:30–10:00	SCH A251	The Origin of Cellular Life — •JACK W SZOSTAK
BP 55.1	Thu	15:00–15:30	HÜL 386	Network heterogeneity regulates steering in actin-based motility — •LAURENT BLANCHON
BP 56.1	Thu	15:00–15:30	SCH A251	Biophysical Studies of Amyloid Formation and Its Inhibition — •SHEENA RADFORD

BP 59.1	Fri	9:30–10:00	HÜL 386	Spatially-resolved transcriptomics and single-cell lineage tracing — ●JAN PHILIPP JUNKER
BP 60.1	Fri	9:30–10:00	SCH A251	Spontaneous curvature and membrane curling for malaria-infected erythrocytes — ●MANOUK ABKARIAN, OCTAVIO ALBARRAN ARRIAGA, GLADYS MASSIERA, CYRIL CLAUDET, ANDREW CALLAN JONES, VLADIMIR LORMAN, CATHERINE BRAUN BRETON

Invited talks of the joint symposium Bioinspired Functional Materials: From Nature's Nanoarchitectures

See SYBM for the full program of the symposium.

SYBM 1.1	Tue	9:30–10:00	HSZ 02	New twists in biological photonics: circular polarisation and beyond. — ●PETE VUKUSIC, LUKE McDONALD, EWAN FINLAYSON
SYBM 1.2	Tue	10:00–10:30	HSZ 02	Bio-inspired materials and structures for technology and architecture — ●THOMAS SPECK
SYBM 1.3	Tue	10:30–11:00	HSZ 02	Cellulose bio-inspired hierarchical structures — ●SILVIA VIGNOLINI
SYBM 1.4	Tue	11:15–11:45	HSZ 02	Strong Flexible Bioenabled Nanocomposites for Sustainable Sensing — ●VLADIMIR TSUKURUK
SYBM 1.5	Tue	11:45–12:15	HSZ 02	3D laser nano-printing of rationally designed materials — ●MARTIN WEGENER

Invited talks of the joint symposium Physics of Collective Mobility (SYCM) organized by SOE

See SYCM for the full program of the symposium.

SYCM 1.1	Wed	9:30–10:00	HSZ 02	Mobility in shareability networks — ●MICHAEL SZELL
SYCM 1.2	Wed	10:00–10:30	HSZ 02	Trail-following bacteria: from single particle dynamics to collective behaviour — ANATOLIY GELIMSON, KUN ZHAO, CALVIN K. LEE, W. TILL KRANZ, GERARD C. L. WONG, ●RAMIN GOLESTANIAN
SYCM 1.3	Wed	10:30–11:00	HSZ 02	Mobility and Self-Organization in Multi-Layer Networks: A Meta-Foodweb example — ●THILO GROSS, ANDREAS BRECHTEL, PHILIPP GRAMLICH, DANIEL RITTERSKAMP, BARBARA DROSSEL
SYCM 1.4	Wed	11:15–11:45	HSZ 02	Temporal Percolation in Critical Collective Mobility Systems — ●ANDREAS SORGE, DEBSANKHA MANIK, JAN NAGLER, MARC TIMME
SYCM 1.5	Wed	11:45–12:15	HSZ 02	Modeling the evolution of cities — ●MARC BARTHELEMY

Sessions

BP 1.1–1.12	Mon	9:30–13:00	ZEU 250	Computational Biophysics (Joint Session BP/DY)
BP 2.1–2.10	Mon	9:30–12:45	HÜL 386	Bioimaging and Spectroscopy I
BP 3.1–3.10	Mon	9:30–13:00	SCH A251	Mechanics and Dynamics of 3D Tissues - Joint Focus Session (BP/CPP/DY) organized by Peter Loskill
BP 4.1–4.9	Mon	15:00–17:30	ZEU 250	Systems Biology & Gene Expression and Signalling
BP 5.1–5.9	Mon	15:00–17:30	HÜL 386	Single Molecule Biophysics
BP 6.1–6.6	Mon	15:00–16:45	SCH A251	Cell Mechanics (Joint Session BP/DY)
BP 7.1–7.7	Mon	17:30–19:30	P3	Posters - Mechanics and Dynamics of 3D Tissues (Focus Session)
BP 8.1–8.20	Mon	17:30–19:30	P3	Posters - Bioimaging and Spectroscopy
BP 9.1–9.16	Mon	17:30–19:30	P3	Posters - Cell Mechanics
BP 10.1–10.10	Mon	17:30–19:30	P3	Posters - Single Molecule Biophysics
BP 11.1–11.5	Tue	9:30–12:15	HSZ 02	Bioinspired Functional Materials: From Nature's Nanoarchitectures to Nanofabricated Designs (Joint Symposium CPP/BP/MM/DF/DY/MI)
BP 12.1–12.11	Tue	9:30–13:00	HÜL 186	Microswimmers I (Joint Session DY/BP)
BP 13.1–13.5	Tue	9:30–11:00	HÜL 386	Bioimaging and Spectroscopy II
BP 14.1–14.10	Tue	9:30–13:00	SCH A251	Physics of <i>Physarum polycephalum</i> and Other Slime Molds - Joint Focus Session (BP/DY) organized by Hans-Günther Döbereiner
BP 15.1–15.6	Tue	11:30–13:00	ZEU 255	Colloids and Complex Fluids I (Joint Session CPP/BP/DY)

BP 16.1–16.3	Tue	11:30–12:30	HÜL 386	Biotechnology and Bioengineering
BP 17.1–17.5	Tue	14:30–15:45	HÜL 186	Microswimmers II (Joint Session DY/BP)
BP 18.1–18.8	Tue	14:00–16:00	ZEU 118	Statistical Physics in Biological Systems II (Joint Session DY/BP)
BP 19.1–19.14	Tue	14:00–16:00	P1A	Posters - Computational Biophysics
BP 20.1–20.19	Tue	14:00–16:00	P1A	Posters - Physics of the Genesis of Life (Focus Session)
BP 21.1–21.14	Tue	14:00–16:00	P1A	Posters - Membranes and Vesicles
BP 22.1–22.9	Tue	14:00–16:00	P1A	Posters - Biomaterials and Biopolymers
BP 23.1–23.10	Tue	14:00–16:00	P1A	Posters - Statistical Physics of Biological Systems
BP 24.1–24.18	Tue	14:00–16:00	P1A	Posters - Protein Structure and Dynamics
BP 25.1–25.12	Tue	14:00–16:00	P2-EG	Posters - Cytoskeletal Filaments
BP 26.1–26.8	Tue	14:00–16:00	P2-EG	Posters - Cell Adhesion
BP 27.1–27.4	Tue	14:00–16:00	P2-EG	Posters - Microswimmers
BP 28.1–28.1	Tue	14:00–16:00	P2-EG	Posters - Cell Migration & Contraction
BP 29.1–29.12	Tue	14:00–16:00	P2-EG	Posters - Multi-Cellular Systems
BP 30.1–30.2	Tue	14:00–16:00	P2-OG1	Posters - Neurosciences
BP 31.1–31.4	Tue	14:00–16:00	P2-OG1	Posters - Biotechnology and Bioengineering
BP 32.1–32.2	Tue	14:00–16:00	P2-OG1	Posters - DNA/RNA
BP 33.1–33.8	Tue	14:00–16:00	P2-OG1	Posters - Systems Biology & Gene Expression and Signalling
BP 34.1–34.5	Tue	14:00–16:00	P2-OG1	Posters - Physics of <i>Physarum polycephalum</i> and Other Slime Molds (Focus Session)
BP 35.1–35.2	Tue	14:00–16:00	P2-OG1	Posters - Physics of Parasites (Focus Session)
BP 36.1–36.1	Wed	8:30– 9:15	HSZ 01	Plenary Talk
BP 37.1–37.5	Wed	9:30–12:15	HSZ 02	Physics of Collective Mobility (Joint Symposium SOE/DY/BP/jDPG)
BP 38.1–38.11	Wed	9:30–13:00	HÜL 386	Membranes and Vesicles I
BP 39.1–39.7	Wed	9:30–12:30	SCH A251	Optogenetics for the Cytoskeleton - Focus Session organized by Ulrich Schwarz
BP 40.1–40.9	Wed	10:15–13:00	ZEU 260	Colloids and Complex Fluids II (Joint Session CPP/BP/DY)
BP 41.1–41.15	Wed	15:00–19:00	HÜL 186	Active Matter I (Joint Session DY/BP/ CPP)
BP 42.1–42.8	Wed	15:00–17:30	ZEU 250	Neurosciences
BP 43.1–43.7	Wed	15:00–17:15	HÜL 386	Cytoskeletal Filaments
BP 44.1–44.8	Wed	15:00–17:15	SCH A251	Biomaterials and Biopolymers (Joint Session BP/ CPP)
BP 45	Wed	18:30–19:30	HÜL 386	Annual General Meeting of the BP Division (BP Mitgliederversammlung)
BP 46.1–46.12	Thu	9:30–13:00	HÜL 186	Active Matter II (Joint Session DY/BP/ CPP)
BP 47.1–47.4	Thu	9:30–10:45	ZEU 250	Cell Adhesion
BP 48.1–48.11	Thu	9:30–13:00	HÜL 386	Membranes and Vesicles II
BP 49.1–49.12	Thu	9:30–13:00	SCH A251	Physics of the Genesis of Life - Focus Session organized by Moritz Kreysing and Dieter Braun
BP 50.1–50.12	Thu	9:30–13:00	GÖR 226	Networks: From Topology to Dynamics I (Joint Session SOE/DY/BP)
BP 51.1–51.6	Thu	11:15–12:45	ZEU 250	Microswimmers III (Joint Session BP/DY)
BP 52.1–52.9	Thu	15:00–18:00	ZEU 260	Topological Problems in the Physics of Polymers, Biopolymers and Fibers I (Joint Focus Session CPP/BP)
BP 53.1–53.8	Thu	15:00–17:00	ZEU 118	Pattern Formation (Joint Session DY/BP)
BP 54.1–54.10	Thu	15:00–17:30	ZEU 250	Statistical Physics of Biological Systems I (Joint Session BP/DY)
BP 55.1–55.7	Thu	15:00–17:15	HÜL 386	Cell Migration and Contraction
BP 56.1–56.9	Thu	15:00–17:30	SCH A251	Protein Structure and Dynamics
BP 57.1–57.5	Thu	15:00–16:15	ZEU 147	Networks: From Topology to Dynamics II (Joint Session DY/BP/SOE)
BP 58.1–58.5	Fri	9:30–10:45	ZEU 250	DNA & RNA
BP 59.1–59.5	Fri	9:30–11:00	HÜL 386	Multi-Cellular-Systems
BP 60.1–60.6	Fri	9:30–12:15	SCH A251	Physics of Parasites - Joint Focus Session (BP/DY) organized by Holger Stark
BP 61.1–61.6	Fri	10:15–13:00	ZEU 222	Topological Problems in the Physics of Polymers, Biopolymers and Fibers II (Joint Focus Session CPP/BP)

Annual General Meeting of the Biological Physics Division (BP Mitgliederversammlung)

Wednesday, March 22, 2017 18:30–19:30 HÜL 386

- Report of the current speaker team
- Election of the new speaker team 2017-2019
- Award of the EPL poster prizes of the Biological Physics Division
- Miscellaneous