Chemical and Polymer Physics Division
Fachverband Chemische Physik und Polymerphysik (CPP)

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Overview of Invited Talks and Sessions

(Lecture halls H34, H38, and H46; Poster P3 and P4)

Invited Talks

CPP 1.1	Mon	9:30–10:00	H34	**Impact of smallest loops and composition fluctuations on the structure of end-linked polymer model networks** — •Michael Lang, Reinhard Scholz, Toni Müller
CPP 5.1	Mon	11:30–12:00	H38	**Theoretical characterization of sulfur/carbon copolymer cathodes for next-generation batteries via *ab initio* spectroscopy simulations** — •Daniel Sebastiani, Pouya Partovi-Azar
CPP 8.1	Mon	15:00–15:30	H38	**The Nanoscale Photovoltaics Laboratory on a Tip** — •Stefan Weber
CPP 16.1	Tue	9:30–10:00	H34	**Multifunctional structural batteries** — •Göran Lindbergh
CPP 17.1	Tue	9:30–10:00	H38	**Continuum models for water's peculiar behavior on the nanoscale** — •Alexander Schlaich
CPP 18.1	Tue	9:30–10:00	H46	**Hybrid materials from colloidally stable nanocellulose and nanoparticles - scattering techniques are needed for characterization** — •Eva Malmström, Åsa Jerlhagen, Benedikt Sochor, Korneliya Gordeyeva, Stephan Roth
CPP 20.1	Tue	11:30–12:00	H38	**Tailored polymer thin films enabled by initiated chemical vapor deposition (iCVD): From fundamentals to functional applications** — •Stefan Schröder
CPP 23.1	Wed	9:30–10:00	H34	**Advanced combined rheometer setups to in-situ correlate molecular dynamics and molecular structure formation with mechanical properties** — •Manfred Wilhelm
CPP 26.1	Wed	11:30–12:00	H34	**Polyelectrolytes in the confined space of mesopores for transport regulation** — •Annette Andrieu-Brunsen
CPP 30.1	Wed	16:15–16:45	H34	**Challenges and Opportunities in Bringing Machine Learning to a Synchrotron** — •Alexander Hexemer, Tanny Chavez, Wiebke Köpp, Dylan McReynolds, Stephan Roth, Tim Snow, Sharif Ahmed
CPP 31.1	Wed	16:15–16:45	H38	**Moving with minimum effort – Optimal work protocols for systems with memory** — •Sarah Loos, Samuel Monter, Felix Ginot, Clemens Bechinger
CPP 34.1	Thu	15:00–15:30	H34	**Understanding Nanocellulose-Water Interactions to Engineer Advanced Functional Materials** — •Valentina Guccini
CPP 37.1	Thu	16:15–16:45	H34	**Modelling Hygroexpansion of Compression and Opposite Wood of Conifer Branches: Bridging the Gap between Molecular and Cell Wall Level** — Marie Hartwig-Nair, Sara Florisson, Kristofer Gamstedt, •Malin Wohlert
CPP 38.1	Thu	16:15–16:45	H38	**Adsorption and Interaction of Amino Acids on Titanium Oxide Photocatalyst** — Miguel Blanco-Garcia, Mona Kohantorabi, Benedikt Socher, Ulrike Protzer, Stephan V. Roth, Cristiana Di Valentin, Andreas Stierle, •Heshmat Noei
CPP 41.1	Fri	9:30–10:00	H38	**Simulations of reaction equilibria in macromolecular systems** — •Peter Košovan

Invited Talks of the joint Symposium Physics of Embryonic Development Across Scales: From

DNA to Organisms (SYED)

See SYED for the full program of the symposium.

SYED 1.1	Mon	9:30–10:00	H1	**Emergent crystalline order in a developing epithelium** — Kartik Chhajed, Natalie Dye, Marko Popović, •Frank Jülicher
SYED 1.2	Mon	10:00–10:30	H1	**A tissue rigidity phase transition shapes morphogen gradients** — Camilla Autorino, Diana Khoromskaia, Bernat Corominas-Murtra, Zena Hadjivasiliou, •Nicoletta Petridou
SYED 1.3	Mon	10:30–11:00	H1	**Building quantitative dynamical landscapes of developmental cell fate decisions** — •David Rand
SYED 1.4	Mon	11:15–11:45	H1	**Control of lumen geometry and topology by the interplay between pressure and cell proliferation rate** — •Anne Grapin-Botton, Byung Ho Lee, Masaki Sano, Daniel Riveline, Kana Fuji, Tetsuya Hiraiwa
SYED 1.5	Mon	11:45–12:15	H1	**Chromosomes as active communication and memory machines** — •Leonid A. Mirny

Invited Talks of the joint SKM Dissertationspreis 2025 (SYSD)

See SYSD for the full program of the symposium.

SYSD 1.1	Mon	9:30–10:00	H2	**Nanoscale Chemical Analysis of Ferroic Materials and Phenomena** — •Kasper Aas Hunnestad
SYSD 1.2	Mon	10:00–10:30	H2	**Advanced Excitation Schemes for Semiconductor Quantum Dots** — •Yusuf Karli
SYSD 1.3	Mon	10:30–11:00	H2	**Aspects and Probes of Strongly Correlated Electrons in Two-Dimensional Semiconductors** — •Clemens Kuhlenkamp
SYSD 1.4	Mon	11:00–11:30	H2	**Mean back relaxation and mechanical fingerprints: simplifying the study of active intracellular mechanics** — •Till Münker
SYSD 1.5	Mon	11:30–12:00	H2	**Coherent Dynamics of Atomic Spins on a Surface** — •Lukas Veldman

Invited Talks of the joint Symposium Pushing the Boundaries of Fair Data Practices for Condensed Matter Insights: From Workflows to Machine Learning (SYFD)

See SYFD for the full program of the symposium.

SYFD 1.1	Wed	9:30–10:00	H1	**Pushing the Boundaries of Fair Data Practices for Condensed Matter Insight** — •Astrid Schneidwind
SYFD 1.2	Wed	10:00–10:30	H1	**Establishing Workflows of Experimental Solar Cell Data into NOMAD** — Edgar Nandayapa, Paolo Graniero, Jose Marquez, Michael Götte, •Eva Unger
SYFD 1.3	Wed	10:30–11:00	H1	**Building up the EOSC Federation** — •Ute Gunsenheimer
SYFD 1.4	Wed	11:15–11:45	H1	**Data-Driven Materials Science for Energy-Sustainable Applications** — •Jacqueline Cole
SYFD 1.5	Wed	11:45–12:15	H1	**Machine Learning and FAIR Data in X-ray Surface Science** — •Stefan Kowarik

Invited Talks of the joint Symposium AI in (Bio-)Physics (SYAI)

See SYAI for the full program of the symposium.

SYAI 1.1	Thu	9:30–10:00	H1	**Predicting interaction partners and generating new protein sequences using protein language models** — •Anne-Florence Bitbol
SYAI 1.2	Thu	10:00–10:30	H1	**Realizing Schrödinger's dream with AI-enabled molecular dynamics** — •Alexandre Tkatchenko
SYAI 1.3	Thu	10:30–11:00	H1	**Emergent behavior of artificial intelligence** — •Steffen Rulands
SYAI 1.4	Thu	11:15–11:45	H1	**AI in medical research - navigating complexity with AI** — •Daniel Truhn
SYAI 1.5	Thu	11:45–12:15	H1	**Computational Modelling of Morphogenesis** — •Dagmar Iber

Sessions

CPP 1.1–1.6	Mon	9:30–11:15	H34	**Gels, Polymers Networks and Elastomers I**
CPP 2.1–2.11	Mon	9:30–12:45	H37	**Active Matter I (joint session DY/BP/CPP)**
CPP 3.1–3.7	Mon	9:30–11:15	H38	**Organic Electronics and Photovoltaics I**
CPP 4.1–4.6	Mon	11:30–13:00	H34	**Crystallization, Nucleation and Self-Assembly I**
CPP 5.1–5.5	Mon	11:30–13:00	H38	**Composites and Functional Polymer Hybrids**
CPP 6.1–6.4	Mon	15:00–16:00	H34	**Gels, Polymers Networks and Elastomers II**
CPP 7.1–7.7	Mon	15:00–17:00	H37	**Active Matter II (joint session BP/CPP/DY)**
CPP 8.1–8.3	Mon	15:00–16:00	H38	**Hybrid and Perovskite Photovoltaics I**
CPP 9.1–9.6	Mon	15:00–16:45	H46	**Biomaterials and Biopolymers (joint session BP/CPP)**
CPP 10.1–10.4	Mon	16:15–17:15	H34	**Wetting, Fluidics and Liquids at Interfaces and Surfaces I (joint session CPP/DY)**
CPP 11.1–11.3	Mon	16:15–17:00	H38	**Hybrid and Perovskite Photovoltaics II**
CPP 12.1–12.4	Mon	17:00–18:00	H46	**Biomaterials, Biopolymers and Bioinspired Functional Materials I (joint session CPP/BP)**
CPP 13.1–13.5	Mon	17:15–18:30	H38	**Molecular Electronics and Excited State Properties I**
CPP 14.1–14.4	Mon	17:30–18:30	H34	**Wetting, Fluidics and Liquids at Interfaces and Surfaces II (joint session CPP/DY)**
CPP 15.1–15.74	Mon	19:00–21:00	P4	**Poster Session I**
CPP 16.1–16.6	Tue	9:30–11:15	H34	**Energy Storage and Batteries I**
CPP 17.1–17.6	Tue	9:30–11:15	H38	**Modeling and Simulation of Soft Matter I**
CPP 18.1–18.6	Tue	9:30–11:15	H46	**Biomaterials, Biopolymers and Bioinspired Functional Materials II (joint session CPP/BP)**
CPP 19.1–19.11	Tue	9:30–13:00	H47	**Active Matter III (joint session DY/BP/CPP)**
CPP 20.1–20.5	Tue	11:30–13:00	H38	**Interfaces and Thin Films I**
CPP 21.1–21.6	Tue	14:00–15:30	H34	**Modeling and Simulation of Soft Matter II**
CPP 22.1–22.5	Tue	14:00–15:15	H38	**Organic Electronics and Photovoltaics II**
CPP 23.1–23.6	Wed	9:30–11:15	H34	**Polymer and Molecular Dynamics, Friction and Rheology**
CPP 24.1–24.7	Wed	9:30–11:15	H38	**Hybrid and Perovskite Photovoltaics III**
CPP 25.1–25.20	Wed	10:00–12:00	P3	**Poster: Active Matter, Soft Matter, Fluids (joint session DY/CPP)**
CPP 26.1–26.5	Wed	11:30–13:00	H34	**Nanostructures, Nanostructuring and Nanosized Soft Matter I**
CPP 27.1–27.6	Wed	11:30–13:00	H38	**Molecular Electronics and Excited State Properties II**
CPP 28.1–28.4	Wed	15:00–16:00	H34	**Modeling and Simulation of Soft Matter III**
CPP 29.1–29.4	Wed	15:00–16:00	H38	**Organic Electronics and Photovoltaics III**
CPP 30.1–30.8	Wed	16:15–18:30	H34	**Emerging Topics in Chemical and Polymer Physics, New Instruments and Methods I**
CPP 31.1–31.6	Wed	16:15–18:00	H38	**Responsive and Adaptive Polymers**
CPP 32.1–32.45	Thu	9:30–12:00	P3	**Poster Session II**
CPP 33.1–33.5	Thu	11:45–13:00	H34	**Modeling and Simulation of Soft Matter IV**
CPP 34.1–34.3	Thu	15:00–16:00	H34	**Focus Session: Interactions Between Water and Cellulose I**
CPP 35.1–35.9	Thu	15:00–17:45	H37	**Microswimmers and Microfluidics (joint session DY/BP/CPP)**
CPP 36.1–36.4	Thu	15:00–16:00	H38	**Organic Electronics and Photovoltaics IV**
CPP 37.1–37.3	Thu	16:15–17:15	H34	**Focus Session: Interactions Between Water and Cellulose II**
CPP 38.1–38.5	Thu	16:15–17:45	H38	**Interfaces and Thin Films II**
CPP 39	Thu	18:00–19:00	H38	**Members' Assembly**
CPP 40.1–40.7	Fri	9:30–11:15	H34	**Energy Storage and Batteries II**
CPP 41.1–41.6	Fri	9:30–11:15	H38	**Charged Soft Matter, Polyelectrolytes and Ionic Liquids I**
CPP 42.1–42.12	Fri	9:30–13:00	H44	**Active Matter IV (joint session BP/CPP/DY)**
CPP 43.1–43.11	Fri	9:30–12:45	H47	**Droplets, Wetting, Complex Fluids, and Soft Matter (joint session DY/CPP)**
CPP 44.1–44.4	Fri	11:30–12:30	H34	**2D Materials**
CPP 45.1–45.5	Fri	11:30–12:45	H38	**Charged Soft Matter, Polyelectrolytes and Ionic Liquids II**
CPP 46.1–46.1	Fri	13:15–14:00	H2	**Closing Talk (joint session BP/CPP/DY)**

Members' Assembly of the Chemical and Polymer Physics Division

Thursday 18:00–19:00 H38