

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

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Overview of Invited Talks and Sessions

(Lecture halls H8, H13, H14, and H18; Poster B1)

Invited Talks

CPP 1.1	Mon	9:30–10:00	H14	Building Complex Colloids with Block Copolymers and Topology — •ANDRE GROESCHEL
CPP 1.2	Mon	10:00–10:30	H14	Gradient dynamics models for films of complex fluids and beyond - Dewetting, line deposition and crystallisation — •UWE THIELE
CPP 1.4	Mon	10:45–11:15	H14	Controlling structure, orientation and nanomorphology in semi-conducting and conducting polymer films — •MARTIN BRINKMANN, LAURE BINIEK, VISHNU VIJAYAKUMAR, VIKTORIIA UNTILOVA
CPP 1.5	Mon	11:30–12:00	H14	Conjugated polymers: linking mesoscopic morphology and charge transport — •DENIS ANDRIENKO
CPP 2.1	Mon	9:30–10:00	H18	The perovskite/transport layer interfaces dominate non-radiative recombination in efficient perovskite solar cells — •MARTIN STOLTERFOHT, PIETRO CAPRIOGGIO, CHRISTIAN WOLFF, JOSE MARQUEZ, THOMAS KIRCHARTZ, THOMAS UNOLD, DIETER NEHER
CPP 3.1	Mon	9:30–10:00	H13	Tailoring the Excited State Energy Landscape in Supramolecular Nanostructures — •RICHARD HILDNER
CPP 9.1	Mon	15:00–15:30	H18	Bulk Amounts of (6,5) Carbon Nanotubes for (Opto)- Electronic Devices — •JANA ZAUMSEIL
CPP 20.6	Tue	10:45–11:15	H13	Dynamic surface tension of soft solids — MATHIJS VAN GORCUM, BRUNO ANDREOTTI, JACCO SNOELJER, •STEFAN KARPITSCHKA
CPP 24.1	Tue	10:45–11:15	H14	Mechanochemical activation of Cu-NHC-complexes : molecular design, force-measurements and application in polymer materials — •WOLFGANG H BINDER, MICHEL BIEWEND, PHILIPP MICHAEL, MARTIN BEYER, MATTHEW SAMMON
CPP 24.2	Tue	11:30–12:00	H14	Mechanoradicals in collagen or: Why playing soccer hurts — •FRAUKE GRÄTER, CHRISTOPHER ZAPP, AGNIESZKA OBARSKA-KOSINSKI, CSABA DADAY, REINHARD KAPPL
CPP 24.5	Tue	12:30–13:00	H14	The challenges and opportunities of polymer mechanochemistry — •ROMAN BOULATOV
CPP 30.1	Wed	9:30–10:00	H14	Microstructural transitions and characterization of capillary suspensions — SEBASTIAN BINDGEN, FRANK BOSSLER, IRENE NATALIA, •ERIN KOOS
CPP 39.1	Wed	15:00–15:30	H14	Film formation, microstructure and ferroelectricity of MAPbI₃ light-harvesting layers — HOLGER RÖHM, TOBIAS LEONHARD, ALEXANDER SCHULZ, SUSANNE WAGNER, MICHAEL HOFFMANN, •ALEXANDER COLSMANN
CPP 39.2	Wed	15:30–16:00	H14	How do evaporating thin films evolve? Unravelling phase-separation mechanisms during solvent-based fabrication of polymer blends — •OLGA WODO
CPP 39.7	Wed	17:15–17:45	H14	Thin film structuring upon liquid-vapor mass exchange — •JASPER MICHELS
CPP 48.1	Wed	15:45–16:15	H13	Many Weak Interactions Make a Difference - from Fuzzy Biomolecular Self Assembly to Superselectivity — •RALF RICHTER
CPP 49.1	Wed	17:15–17:45	H18	Stimuli-Responsive Polymer-Based Sensors, Muscles, and Drug Delivery Platforms — •MICHAEL SERPE

CPP 51.1	Thu	9:30–10:00	H13	Systematic Dynamic Coarse-Graining with Memory — GERHARD JUNG, MARTIN HANKE, •FRIEDERIKE SCHMID
CPP 56.1	Thu	15:00–15:30	H14	Microstructure resolved simulations and theory based modeling: Tools for exploring the inner life of a battery — •ARNULF LATZ
CPP 56.3	Thu	15:45–16:15	H14	Increasing the rate capability of thick graphite electrodes: Insights from MRI, NMR and porous electrode theory modelling — •JAMIE FOSTER
CPP 56.5	Thu	16:45–17:15	H14	Numerical Simulation and Machine Learning in Virtual Materials Design — •JAN HAMAEEKERS
CPP 58.1	Thu	15:00–15:30	H13	Gyroids on the nanoscale: Metamaterials with surprising optical properties — •BODO WILTS
CPP 59.1	Thu	15:00–15:30	H8	Polymer-Grafted Nanoparticle Membranes with Exceptional Gas Separation Performance — •SANAT KUMAR
CPP 66.1	Fri	9:45–10:15	H18	Coupled Organic-Inorganic Nanostructures for Optical Switches — •MARCUS SCHEELE

Invited talks of the joint Symposium SKM Dissertation-Prize 2019

See SYSD for the full program of the symposium.

SYSD 1.1	Mon	9:30– 9:50	H2	Synchronization and Waves in Confined Complex Active Media — •JAN FREDERIK TOTZ
SYSD 1.2	Mon	9:50–10:10	H2	Spin scattering of topologically protected electrons at defects — •PHILIPP RÜSSMANN
SYSD 1.3	Mon	10:10–10:30	H2	Beyond the molecular movie: Revealing the microscopic processes behind photo-induced phase transitions — •CHRIS W. NICHOLSON
SYSD 1.4	Mon	10:30–10:50	H2	Thermodynamic bounds on current fluctuations — •PATRICK PIETZONKA
SYSD 1.5	Mon	10:50–11:10	H2	Lightwave-driven quasiparticle acceleration — •FABIAN LANGER
SYSD 1.6	Mon	11:10–11:30	H2	Ultrafast plasmon-driven point-projection electron microscopy — •JAN VOGELSANG
SYSD 1.7	Mon	11:30–11:50	H2	Helimagnets, sand patterns and fingerprints linked by topology — •PEGGY SCHÖNHERR

Invited talks of the joint Symposium Mechanically Controlled Electrical Conductivity of Oxides

See SYCO for the full program of the symposium.

SYCO 1.1	Mon	9:30–10:00	H1	Dislocation Dynamics and Their Conductivities in Oxides — •YUICHI IKUHARA
SYCO 1.2	Mon	10:00–10:30	H1	Strain effects in ionic conductivity and electrode processes — •JÜRGEN JANEK
SYCO 1.3	Mon	10:30–11:00	H1	Elastic dipoles of point defects in materials — •CELINE VARVENNE
SYCO 1.4	Mon	11:30–12:00	H1	Mapping strain/pressure with ZnO nanowire arrays by piezophototronic effect — •CAOFENG PAN
SYCO 1.5	Mon	12:00–12:30	H1	Bulk and Flexo-photovoltaic effect — •MARIN ALEXE

Invited talks of the joint Symposium Patterns in Nature: Origins, Universality, Functions

See SYPN for the full program of the symposium.

SYPN 1.1	Mon	15:00–15:30	H1	Engineering spatial-temporal organization of bacterial suspensions — •IGOR ARONSON
SYPN 1.2	Mon	15:30–16:00	H1	Collective behaviour and pattern formation in phoretic active matter — •RAMIN GOLESTANIAN
SYPN 1.3	Mon	16:00–16:30	H1	Control and selection of spatio-temporal patterns in complex systems — •SVETLANA GUREVICH
SYPN 1.4	Mon	16:45–17:15	H1	Self-organization of Active Surfaces — •FRANK JÜLICHER
SYPN 1.5	Mon	17:15–17:45	H1	Front instabilities can reverse desertification — •EHUD MERON

Invited talks of the joint Symposium Czech Republic as Guest of Honor

See SYCZ for the full program of the symposium.

SYCZ 1.1	Thu	9:30–10:00	H4	Crystal symmetries and transport phenomena in antiferromagnets — •TOMAS JUNGWIRTH
SYCZ 1.2	Thu	10:00–10:30	H4	Terahertz subcycle charge and spin control — •RUPERT HUBER
SYCZ 1.3	Thu	10:30–11:00	H4	1D molecular system on surfaces — •PAVEL JELINEK
SYCZ 1.4	Thu	11:15–11:45	H4	Tunneling microscopy on insulators provides access to out-of-equilibrium charge states — •JASCHA REPP
SYCZ 1.5	Thu	11:45–12:15	H4	Occam’s razor and complex networks from brain to climate — •JAROSLAV HLINKA
SYCZ 1.6	Thu	12:15–12:45	H4	Long range temporal correlations in complex systems — •HOLGER KANTZ

Invited talks of the joint Symposium Physics of Self-Organization in DNA Nanostructures

See SYDN for the full program of the symposium.

SYDN 1.1	Thu	9:30–10:00	H1	Functional DNA Nanostructures and Their Applications — •ITAMAR WILLNER
SYDN 1.2	Thu	10:00–10:30	H1	Gaining control of DNA-based nanodevices — •FRANCESCO RICCI
SYDN 1.3	Thu	10:30–11:00	H1	Self-assembly and optical properties of single molecule polymers on DNA origami — •KURT GOTHELF
SYDN 1.4	Thu	11:15–11:45	H1	DNA origami route to dynamic plasmonics — •LAURA LIU
SYDN 1.5	Thu	11:45–12:15	H1	DNA templated metal nanostructures — •RALF SEIDEL

Sessions

CPP 1.1–1.7	Mon	9:30–12:30	H14	Focus: Morphology of Complex Polymer Mesophases: From Experiment to Modelling - organized by Kostas Daoulas and Volker Abetz
CPP 2.1–2.11	Mon	9:30–12:45	H18	Hybrid and Perovskite Photovoltaics I
CPP 3.1–3.12	Mon	9:30–13:00	H13	Molecular Electronics and Excited State Properties
CPP 4.1–4.10	Mon	9:30–12:15	H8	Responsive and Adaptive Systems (joint session CPP/DY)
CPP 5.1–5.9	Mon	9:30–12:30	H10	Membranes and vesicles I (joint session BP/ CPP)
CPP 6.1–6.11	Mon	9:30–12:45	H20	Active Matter A (joint session DY/ CPP)
CPP 7.1–7.9	Mon	10:30–13:00	H9	Frontiers of Electronic-Structure Theory: Focus on the Interface Challenge I (joint session O/TT/ CPP/DS)
CPP 8.1–8.8	Mon	15:00–17:15	H14	Interfaces and Thin Films (joint session CPP/DY)
CPP 9.1–9.7	Mon	15:00–17:15	H18	Organic Electronics and Photovoltaics I - Charge Transport and Electronic Devices
CPP 10.1–10.9	Mon	15:00–17:30	H13	Crystallization, Nucleation and Self-assembly I
CPP 11.1–11.4	Mon	15:00–16:00	H8	Emerging Topics in Chemical and Polymer Physics, New Instruments and Methods
CPP 12.1–12.10	Mon	15:00–17:30	H9	Frontiers of Electronic-Structure Theory: Focus on the Interface Challenge II (joint session O/TT/DS/ CPP)
CPP 13.1–13.5	Mon	15:00–16:15	H10	Membranes and Vesicles II (joint session BP/ CPP)
CPP 14.1–14.8	Mon	15:00–17:15	H31	Organic photovoltaics and electronics (joint session HL/ CPP)
CPP 15.1–15.7	Mon	15:45–18:30	H46	Symposium SYCO of the divisions MM (leading), O, CPP, KFM and DS continued as topical session: Mechanically controlled electrical conductivity of oxides (joint session MM/ CPP/O)
CPP 16.1–16.5	Mon	16:15–17:30	H8	Glasses and Glass Transition (joint session CPP/DY)
CPP 17.1–17.44	Mon	17:30–19:30	Poster B1	Poster Session I
CPP 18.1–18.4	Tue	9:30–10:30	H14	Crystallization, Nucleation and Self-Assembly II (joint session CPP/ BP)
CPP 19.1–19.11	Tue	9:30–12:30	H18	Hybrid and Perovskite Photovoltaics II
CPP 20.1–20.12	Tue	9:30–13:00	H13	Wetting, Fluidics and Liquids at Interfaces and Surfaces (joint session CPP/DY)
CPP 21.1–21.13	Tue	9:30–13:00	H36	Two-dimensional Materials I (joint session HL/ CPP)

CPP 22.1–22.9	Tue	10:30–12:45	H8	Plasmonics I (joint session O/CPP)
CPP 23.1–23.9	Tue	10:30–13:00	H9	Frontiers of Electronic-Structure Theory: Focus on the Interface Challenge III (joint session O/CPP/DS/TT)
CPP 24.1–24.5	Tue	10:45–13:00	H14	Focus: Mechanoresponsive Molecules and Materials - organized by Kerstin Blank and Robert Göstl
CPP 25.1–25.58	Tue	14:00–16:00	Poster B1	Poster Session II
CPP 26.1–26.7	Tue	14:00–15:45	H3	Active Matter B (joint session DY/CPP)
CPP 27.1–27.10	Tue	14:00–16:30	H8	Plasmonics II (joint session O/CPP)
CPP 28.1–28.10	Tue	14:00–16:45	H9	Frontiers of Electronic-Structure Theory: Focus on the Interface Challenge IV (joint session O/CPP/DS/TT)
CPP 29.1–29.7	Tue	14:00–15:45	H36	Two-dimensional Materials II: graphene (joint session HL/CPP)
CPP 30.1–30.11	Wed	9:30–12:45	H14	Complex Fluids and Colloids, Micelles and Vesicles (joint session CPP/DY)
CPP 31.1–31.6	Wed	9:30–11:00	H18	Organic Electronics and Photovoltaics II - Non-Fullerene Organic Solar Cells
CPP 32.1–32.13	Wed	9:30–13:00	H13	Charged Soft Matter, Polyelectrolytes and Ionic Liquids I
CPP 33.1–33.12	Wed	9:30–13:00	H4	Active Matter I (joint session BP/CPP/DY)
CPP 34.1–34.13	Wed	9:30–13:00	H36	Two-dimensional Materials III (joint session HL/CPP)
CPP 35.1–35.11	Wed	10:30–13:15	H8	Plasmonics III (joint session O/CPP)
CPP 36.1–36.9	Wed	10:30–13:15	H9	Frontiers of Electronic-Structure Theory: Focus on the Interface Challenge V (joint session O/CPP/DS/TT)
CPP 37.1–37.55	Wed	11:00–13:00	Poster B1	Poster Session III
CPP 38.1–38.5	Wed	11:30–12:45	H18	Polymer Networks and Elastomers
CPP 39.1–39.11	Wed	15:00–18:45	H14	Focus: Controlling Phase Formation Dynamics in Solution Processed Semiconductors - organized by Christoph Brabec, Jens Harting and Hans-Joachim Egelhaaf
CPP 40.1–40.8	Wed	15:00–17:00	H18	Modeling and Simulation of Soft Matter I (joint session CPP/DY)
CPP 41.1–41.2	Wed	15:00–15:30	H13	Charged Soft Matter, Polyelectrolytes and Ionic Liquids II
CPP 42.1–42.11	Wed	15:00–17:45	H8	Plasmonics IV (joint session O/CPP)
CPP 43.1–43.11	Wed	15:00–17:45	H9	Frontiers of Electronic-Structure Theory: Focus on the Interface Challenge VI (joint session O/DS/CPP/TT)
CPP 44.1–44.13	Wed	15:00–18:45	H20	Condensed-matter simulations augmented by advanced statistical methodologies (joint session DY/CPP)
CPP 45.1–45.9	Wed	15:00–17:30	H36	Photovoltaics (joint session HL/CPP)
CPP 46.1–46.9	Wed	15:30–18:00	H19	Microswimmers (joint session DY/CPP)
CPP 47.1–47.15	Wed	15:00–19:15	H3	Complex Fluids and Soft Matter (joint session DY/CPP)
CPP 48.1–48.9	Wed	15:45–18:30	H13	Biopolymers, Biomaterials and Bioinspired Functional Materials (joint session CPP/BP)
CPP 49.1–49.4	Wed	17:15–18:30	H18	Hydrogel und Microgel
CPP 50.1–50.13	Thu	9:30–13:00	H18	Organic Electronics and Photovoltaics III - Organic Photovoltaics
CPP 51.1–51.8	Thu	9:30–12:00	H13	Modeling and Simulation of Soft Matter II (joint session CPP/DY)
CPP 52.1–52.12	Thu	9:30–12:45	H10	Biomaterials and biopolymers I (joint session BP/CPP)
CPP 53.1–53.13	Thu	9:30–13:00	H36	Perovskite and Hybrid Photovoltaics I (joint session HL/CPP)
CPP 54.1–54.10	Thu	10:00–12:45	H19	Active Matter II (joint session DY/CPP)
CPP 55.1–55.3	Thu	12:15–13:00	H13	Physics of Self-Organization in DNA Nanostructures (joint session CPP/BP)
CPP 56.1–56.8	Thu	15:00–18:00	H14	Focus: Computational Methods for the Energy Transition: Paving the Road to Future Materials and Storage Systems - organized by Stephan Kramer and Jochen Zausch
CPP 57.1–57.12	Thu	15:00–18:15	H18	Organic Electronics and Photovoltaics IV - Excitonic Properties and Light-Emitting Devices
CPP 58.1–58.12	Thu	15:00–18:30	H13	Nanostructures, Nanostructuring and Nanosized Soft Matter
CPP 59.1–59.8	Thu	15:00–17:30	H8	Composites and Functional Polymer Hybrids
CPP 60.1–60.7	Thu	15:00–17:00	H10	Biomaterials and biopolymers II (joint session BP/CPP)

CPP 61.1–61.9	Thu	15:00–17:30	H36	Perovskite and Hybrid Photovoltaics II (joint session HL/CPP)
CPP 62.1–62.3	Thu	17:45–18:30	H8	Electrical, Dielectrical and Optical Properties of Thin Films
CPP 63	Thu	18:45–19:45	H13	Annual General Meeting of the CPP Division (CPP Mitgliederversammlung)
CPP 64.1–64.10	Fri	9:30–12:00	H11	Active Matter III (joint session BP/CPP/DY)
CPP 65.1–65.13	Fri	9:30–13:00	H36	Two-dimensional Materials IV (joint session HL/CPP)
CPP 66.1–66.7	Fri	9:45–12:00	H18	Organic Electronics and Photovoltaics V - Semiconducting Properties and Devices
CPP 67.1–67.9	Fri	9:45–12:15	H13	Polymer and Molecular Dynamics, Friction and Rheology
CPP 68.1–68.8	Fri	10:00–12:15	H6	Microfluidics (joint session DY/CPP)
CPP 69.1–69.7	Fri	10:00–11:45	H19	Glasses and Glass transition (joint session DY/CPP)
CPP 70.1–70.1	Fri	12:30–13:15	H1	Closing talk (joint session BP/CPP/DY)

Annual General Meeting of the Chemical and Polymer Physics Division

Thursday 18:45–19:45 H13

- Report of the current speaker team
- Election of the second deputy speaker
- Award of the poster prizes of the CPP Division
- Miscellaneous