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

Thomas Thurn-Albrecht Institut für Physik von-Danckelmann-Platz 3 06099 Halle thurn-albrecht@physik.uni-halle.de

#### Tutorials, Joint Symposium and Focus Sessions

- Tutorial: Modern Photovoltaics Techniques beyond Silicon (Su)
- Tutorial: Physics of NMR Physics with NMR (Su)
- Focus: Structure and Dynamics of Responsive Hydrogels (Mo)
- Joint Symposium SYMR: Nuclear Magnetic Resonance From Applications in Condensed-Matter Physics to New Frontiers (Tu)
- Focus: Active Fluids (We)
- $\bullet$  Focus: Charge Effects in Soft and Biological Matter (Th/Fr)

#### Overview of Invited Talks, Topical Talks and Sessions

(lecture rooms H37, H39, H48, H45 (only Th and Fr); Poster B2 and C)

#### Invited and Topical Talks of CPP Sessions (including Focus Sessions)

CPP 3.1	Mon	10:15-10:45	H37	Interactive hydrogels — •Walter Richtering
CPP 3.8	Mon	12:15–12:45	H37	Dynamics of thermosensitive microgel particles — •MATTHIAS BAL- LAUFF
CPP 4.1	Mon	14:00-14:30	H37	Current mechanistic and experimental views on the heat-induced phase transition of aqueous poly(N-isopropylacrylamide) solutions. — $\bullet$ Francoise Winnik
CPP 4.7	Mon	15:45–16:15	H37	Swelling, structure and hybrid microgel particles — •Antonio Fernandez-Barbero
CPP 6.1	Mon	11:30-12:00	H39	Triplet exciton diffusion in organic semiconductors — ◆Anna Köhler
CPP 8.1	Mon	11:00-11:30	H48	Mesoscopic structure formation of polymers in cylindrical nanopores  — •Martin Steinhart
CPP 17.1	Tue	9:30–10:00	H39	Surviving Structure in Colloidal Suspensions Confined from 3D to 2D — YAN ZENG, STEFAN GRANDNER, SABINE KLAPP, •REGINE VON KLITZING
CPP 18.1	Tue	13:45-14:15	H39	Functional thin films based on polymer- and hybrid-nanostructures for photovoltaic applications — •Peter Müller-Buschbaum
CPP 22.1	Wed	14:00-14:30	H37	Atomic Layer Deposition (ALD) as a Versatile Tool for Nanoscience—  •MATO KNEZ, SEUNG-MO LEE, ADRIANA SZEGHALMI, YONG QIN, ECKHARD PIPPEL, CHRISTIAN DRESBACH, GERD HAUSE
CPP 22.11	Wed	17:00-17:30	H37	Recognition dynamics and kinetics for ubiquitin — •CHRISTIAN GRIESINGER
CPP 23.1	Wed	9:30-10:00	H48	On the dynamics of polymers in nanocomposites and under confinement — • DIETER RICHTER
CPP 23.2	Wed	10:00-10:30	H48	From simple liquids to polymers: Dynamics revealed by field cycling <sup>1</sup> H NMR — AXEL HERRMANN, AZZA ABOU ELFADL, ROMAN MEIER, DANUTA KRUK, VLADIMIR N. NOVIKOV, •ERNST A. RÖSSLER
CPP 24.1	Wed	14:00-14:30	H48	New Approach to the Old Problem: Cooperativity in Dynamics of

Glass Forming Systems — • ALEXEI SOKOLOV

CPP 24.6	Wed	15:45–16:15	H48	Slow domains percolation in polymer melts and blends close to the glass transition: a unifying concept regarding bulk dynamics, dynamics in the vicinity of interfaces, and the physical properties of nanocomposites — •DIDIER R. LONG
CPP 25.1	Wed	9:30-10:00	H39	Designing small swimmers — •RAMIN GOLESTANIAN
CPP 25.2	Wed	10:00-10:30	H39	Magnetic actuation of paramagnetic colloids at interfaces — •THOMAS FISCHER
CPP 25.5	Wed	11:15-11:45	H39	Active behavior of the cytoskeleton — •Jean-Francois Joanny, Jacques Prost
CPP 25.6	Wed	11:45–12:15	H39	Active cytoskeletal polymer networks: from model systems to cells — • Christoph F. Schmidt
CPP 40.11	Thu	12:15-12:45	H48	Novel Nanocomposites in Industrial Applications - Chances and Challenges — •Péter Krüger
CPP 42.1	Thu	11:00-11:30	H39	Local dynamics near the 2D-Glass Transition in Binary Colloidal Mixtures — • GEORG MARET, FLORIAN EBERT, SYLVAIN MAZOYER, PETER KEIM
CPP 44.1	Thu	9:30-10:00	H45	Glassy dynamics and charge transport in ionic liquids — •FRIEDRICH KREMER, JOSHUA SANGORO, CIPRIAN IACOB, JÖRG KÄRGER
CPP 45.1	Thu	11:00-11:30	H45	Charge effects in RNA folding — •LOIS POLLACK
CPP 45.3	Thu	11:45–12:15	H45	Origin of the electrophoretic force on DNA in solid-state nanopores  — •Serge G. Lemay
CPP 46.1	Thu	14:00-14:30	H37	Electrostatic effects on depletion forces — •Roberto Piazza, Stefano Buzzaccaro, Jader Colombo, Alberto Parola
CPP 46.6	Thu	15:45-16:15	H37	In-silico simulation of reentrant protein condensation with highly valent counterions — Sophie Weggler, Michael Ziller, Fajun Zhang, Frank Schreiber, Oliver Kohlbacher, •Andreas Hildebrandt
CPP 47.1 CPP 48.1	Fri Fri	10:15–10:45 10:15–10:45	H45 H39	Charge inversion in macromolecular systems — • Christian Holm Structural arrangement and picosecond dynamics of phospholipids in colloidal systems — • Tobias Unruh, Sebastian Busch, Martin Schmiele

# Invited talks of the joint symposium SYEL - Energy Landscapes: Statistical Physics of (Spin) Glasses, Biomolecules, Clusters, and Optimization Problems

See SYEL for the full program of the Symposium.

SYEL $1.1$	Mon	10:00-10:30	H1	Energy Landscapes of clusters, glasses, and biomolecules — •DAVID
				Wales
SYEL $1.2$	Mon	10:30-11:00	H1	Order parameters and energy landscapes for protein folding and mis-
				folding — •Steven Plotkin
SYEL $1.3$	Mon	11:00-11:30	H1	Nuclear Spins Reveal the Microscopic Nature of Tunneling Systems in
				Glasses — •Christian Enss
SYEL $1.4$	Mon	11:30-12:00	H1	Energy landscapes and phase transitions — •LAPO CASETTI
SYEL $1.5$	Mon	12:00-12:30	H1	Phase transitions in spin glasses — •Peter Young
SYEL $1.6$	Mon	12:30-13:00	H1	Statistical physics of inverse problems — •RICCARDO ZECCHINA

# Invited talks of the joint symposium SYMR - Nuclear Magnetic Resonance: from Applications in Condensed-Matter Physics to New Frontiers

See SYMR for the full program of the Symposium.

SYMR 4.1	Tue	9:30-10:00	H1	NMR with a Magnetic Resonance Force Microscope — •BEAT H. MEIER,
				Kai Eberhardt, Joss Rosmarie, Tomka Ivan
SYMR $4.2$	Tue	10:00-10:30	H1	Probing Novel Electronic States in Strongly Correlated Electron Mate-
				rials Using NMR and NQR — ◆NICHOLAS CURRO
SYMR $4.3$	Tue	10:30-11:00	H1	Interplay of Structure and Dynamics in Macromolecular and
				Supramolecular Systems as Revealed by NMR Spectroscopy — •HANS
				Wolfgang Spiess
SYMR 4.4	Tue	11:15-11:45	H1	Big times for small NMR — •Bernhard Blümich
SYMR $4.5$	Tue	11:45-12:15	H1	Traveling-Wave MRI — •Klaas Prüssmann
SYMR $4.6$	Tue	12:15-12:45	H1	Life on the Edge: The Origins and Proliferation of Protein Misfolding
				Diseases — •Chistopher M. Dobson

# Invited talks of the joint symposium SYAT - Anomalous Transport in Heterogeneous Media – from Porous Materials to Cellular Crowding

See SYAT for the full program of the Symposium.

SYAT 1.1	Wed	14:30-15:00	H1	Aging, ergodicity breaking and universal fluctuations in continuous time random walks: Theory and (possible) experimental manifestations — •IGOR SOKOLOV
SYAT 1.2	Wed	15:00-15:30	H1	Distinguishing anomalous from simple diffusion in crowded solutions and in cells with fluorescence correlation spectroscopy — •Cecile Fradin, Daniel Banks, Shyemaa Shehata, Felix Wong, Robert Peters
SYAT 1.3	Wed	15:30-16:00	H1	Exploring Diffusion in Nanostructured Systems with Single Molecule Probes: From Nanoporous Materials to Living Cells — •CHRISTOPH BRÄUCHLE
SYAT 2.1	Wed	16:30-17:00	H1	The Lorentz model: a paradigm of anomalous transport — •Felix Höfling
SYAT $2.2$	Wed	17:00-17:30	H1	Viscoelastic subdiffusion: from anomalous to normal — •IGOR GOYCHUK
SYAT 2.3	Wed	17:30-18:00	H1	Phase transitions, liquid micro-compartments, and embryonic patterning — •CLIFFORD BRANGWYNNE, JÖBIN GHARAKHANI, ANTHONY HYMAN, FRANK JÜLICHER

### Invited talks of the joint symposium SYNT - Nanotribology

See SYNT for the full program of the Symposium.

SYNT 1.1	Fri	10:15-10:45	H1	Atomic friction under ultrahigh vacuum conditions — •Ernst Meyer, Enrico Gnecco, Pascal Steiner, Gregor Fessler, Sascha Koch, Thilo Glatzel, Alexis Baratoff, Mircin Kisiel, Urs Gysin, Akshata Rao, Shigeki Kawai, Sabine Maier
SYNT 1.2	Fri	10:45–11:15	H1	Layering and Squeeze-out Damping in Confined Liquid Films — •FRIEDER MUGELE
SYNT 1.3	Fri	11:15–11:45	H1	Wear on the nanoscale: mechanisms and materials — ◆BERND GOTS-MANN, MARK A. LANTZ, HARISH BHSKARAN, ABU SEBASTIAN, UTE DRECHSLER, MICHEL DESPONT, YUN CHEN, KUMAR SRIDHARAN, PAPOT JAROENAPIBAL, ROBERT CARPICK
SYNT 1.4	Fri	11:45–12:15	H1	Friction at the Nanoscale: Insights from Atomistic Simulations —  •IZABELA SZLUFARSKA, YIFEI MO, YUN LIU, MANEESH MISHRA
SYNT 1.5 SYNT 1.6	Fri Fri	$12:15-12:45 \\ 12:45-13:15$	H1 H1	The friction of wrinkles — • Martin H. Müser, Hamid Mohammadi Influence of humidity on nano- and micromechanical contact adhesion —
				•Hans-Jürgen Butt

## Sessions

CPP 1.1-1.5	$\operatorname{Sun}$	16:00-18:30	H2	Tutorial: Modern Photovoltaics - Techniques beyond Silicon
$CPP \ 2.1-2.3$	$\operatorname{Sun}$	16:00-18:30	H3	Tutorial: Physics of NMR - Physics with NMR
CPP 3.1–3.8	Mon	10:15-12:45	H37	Focus: Structure and Dynamics of Responsive Hydrogels I
$CPP \ 4.1-4.7$	Mon	14:00-16:15	H37	Focus: Structure and Dynamics of Responsive Hydrogels II
CPP 5.1-5.4	Mon	10:15-11:15	H39	New Instruments and Methods
$CPP \ 6.1-6.4$	Mon	11:30-12:45	H39	Electronic and Optical Properties of Organic Systems I
CPP 7.1-7.10	Mon	14:00-16:30	H39	Electronic and Optical Properties of Organic Systems II
CPP 8.1–8.6	Mon	11:00-12:45	H48	Crystallization and Self Assembly I
CPP 9.1-9.10	Mon	14:00-16:30	H48	Crystallization and Self Assembly II
CPP 10.1-10.9	Mon	16:30-18:00	Poster C	Poster: Structure and Dynamics of Responsive Hydrogels
CPP 11.1-11.11	Mon	16:30-18:00	Poster C	Poster: New Instruments and Methods
CPP 12.1-12.10	Mon	16:30-18:00	Poster C	Poster: Electronic and Optical Properties of Organic Sys-
				tems
CPP 13.1-13.10	Mon	16:30-18:00	Poster C	Poster: Crystallization and Self Assembly
CPP 14.1-14.29	Mon	16:30-18:00	Poster C	Poster: Interfaces and Thin Films
CPP 15.1-15.11	Mon	16:30-18:00	Poster C	Poster: Nuclear Magnetic Resonance - Frontiers and Appli-
				cations
CPP 16.1–16.10	Tue	13:45-16:15	H48	Nuclear Magnetic Resonance: Frontiers and Applications
CPP 17.1-17.11	Tue	9:30-12:45	H39	Interfaces and Thin Films I
CPP 18.1–18.9	Tue	13:45-16:15	H39	Interfaces and Thin Films II
CPP 19.1–19.12	Tue	9:30-12:45	H37	Organic Electronics and Photovoltaics I
CPP 20.1-20.10	Tue	13:45-16:15	H37	Organic Electronics and Photovoltaics II
CPP 21.1-21.12	Wed	9:30-12:45	H37	Organic Electronics and Photovoltaics III
CPP 22.1–22.11	Wed	14:00-17:30	H37	Biopolymers and Biomaterials (jointly with BP)
CPP 23.1-23.10	Wed	9:30-12:45	H48	Polymer Dynamics
CPP 24.1-24.11	Wed	14:00-17:30	H48	Glasses and Glass Transition I (jointly with DY and DF)
CPP 25.1–25.7	Wed	9:30-12:30	H39	Focus: Active Fluids
CPP 26.1–26.13	Wed	14:00-17:30	H39	Micro and Nanofluidics I
CPP 27.1–27.24	Wed	17:30-19:00	Poster C	Poster: Organic Electronics and Photovoltaics
CPP 28.1–28.12	Wed	17:30-19:00	Poster C	Poster: Biopolymers and Biomaterials
CPP 29.1-29.3	Wed	17:30-19:00	Poster C	Poster: Active Fluids
CPP 30.1-30.16	Wed	17:30-19:00	Poster C	Poster: Micro and Nanofluidics
CPP 31.1-31.17	Wed	17:30-19:00	Poster C	Poster: Polymer Dynamics
CPP 32.1-32.5	Wed	17:30-19:00	Poster C	Poster: Liquids and Ionic Liquids
CPP 33.1-33.7	Wed	17:30-19:00	Poster C	Poster: Charge Effects in Soft and Biological Matter
CPP 34.1–34.5	Wed	17:30-19:00	Poster C	Poster: Elastomers and Gels
CPP 35.1–35.3	Wed	17:30-19:00	Poster B2	Poster: Glasses and Glass Transition
CPP 36.1–36.23	Wed	17:30-19:00	Poster B2	Poster: Nanoparticles and Composite Materials
CPP 37.1–37.16	Wed	17:30-19:00	Poster B2	Poster: Colloids and Complex Liquids
CPP 38.1–38.5	Thu	9:30-10:45	H39	Micro and Nanofluidics II
CPP 39.1–39.11	Thu	9:45-12:30	H38	Glasses and Glass Transition II (jointly with DY and DF)
CPP 40.1–40.11	Thu	9:30-12:45	H48	Nanoparticles and Composite Materials I
CPP 41.1–41.12	Thu	14:00-17:15	H48	Nanoparticles and Composite Materials II
CPP 42.1–42.6	Thu	11:00-12:45	H39	Colloids and Complex Liquids I
CPP 43.1–43.14	Thu	14:00-17:45	H39	Colloids and Complex Liquids II
CPP 44.1–44.4	Thu	9:30-10:45	H45	Liquids and Ionic Liquids
CPP 45.1–45.5	Thu	11:00-12:45	H45	Focus: Charge Effects in Soft and Biological Matter I
211 10.11 10.0	1114	11.00 12.10	1110	(jointly with BP)
CPP 46.1-46.12	Thu	14:00-17:45	H37	Focus: Charge Effects in Soft and Biological Matter II
211 10:11 10:12	1114	11.00 11.10		(jointly with BP)
CPP 47.1-47.6	Fri	10:15-12:00	H45	Focus: Charge Effects in Soft and Biological Matter III
22 2 11.12 11.00		10.10 12.00		(jointly with BP)
CPP 48.1-48.4	Fri	10:15-11:30	H39	Colloids and Complex Liquids III
CPP 49.1–49.8	Fri	10:15-12:15	H48	Elastomers and Gels
011 10.1 10.0		10.10 12.10	1110	

### Annual General Meeting of the Chemical and Polymer Physics Division

Mittwoch 19:15–20:00 H48

- $\bullet$  Bericht
- Wahl des stellvertretenden Fachverbandsvorsitzenden
- Frühjahrstagung 2011
- ullet Verschiedenes