Surface Science Division
Fachverband Oberflächenphysik (O)

Martin Wolf
Fritz-Haber-Institut
der Max-Planck-Gesellschaft
Abteilung für Physikalische Chemie
Faradayweg 4-6
14195 Berlin
wolf@fhi-berlin.mpg.de

Overview of Invited Talks and Sessions

(Lecture rooms: MA 001, MA 004, MA 005, MA 041, MA 042, MA 043, MA 141, MA 144, and HE 101; Posters: A and B)

Invited Talks

O 1.1	Mon	9:30–10:15	HE 101	**The Smallest Surface Adsorbed Magnets** — •Harald Brune
O 2.1	Mon	10:30–11:00	MA 004	**Unusual magnetic properties of Fe and Co atoms on MgO** — •Andreas Heinrich
O 2.9	Mon	12:45–13:15	MA 004	**Interface-induced magnetic skyrmions studied with spin-polarized STM** — •Kirsten von Bergmann
O 6.3	Mon	11:00–11:30	MA 043	**CO oxidation over a Pt/Fe_3O_4 model catalyst: Watching Mars van Krevelen at work** — •Gareth Parkinson
O 13.1	Mon	15:00–15:30	MA 041	**Advanced spin-resolved momentum microscopy** — •Christian Tusche
O 17.1	Tue	9:30–10:15	HE 101	**Angle-Resolved Photoemission Spectroscopy (ARPES) and its applications to novel 2D materials** — •Eli Rotenberg
O 19.1	Tue	10:30–11:00	MA 004	**Electronic structure in the vicinity of strong non-adiabatic couplings** — •Eberhard K.U. Gross
O 22.1	Tue	10:30–11:00	MA 042	**Electron dynamics at molecule-semiconductor interfaces** — •Katrin R. Siefermann
O 26.1	Tue	14:00–14:30	MA 004	**First-principles theories of electron-plasmon and electron-spin fluctuation interactions in nanomaterials** — •Johannes Lischner
O 42.1	Wed	9:30–10:15	HE 101	**Understanding organic/inorganic interfaces from first principles** — •Leeor Kronik
O 43.1	Wed	10:30–11:00	MA 005	**Electronic Interactions and Ultrafast Carrier Dynamics at Hybrid Organic / Inorganic Interfaces** — •Oliver L.A. Monti
O 47.1	Wed	10:30–11:00	MA 004	**Transport and excitations in biased nano-junctions: DFT-based simulations** — •Mads Brandbyge
O 48.8	Wed	12:15–12:45	MA 041	**Electronic structure and electron dynamics in two-dimensional materials** — •Philip Hofmann
O 54.1	Wed	13:15–13:45	HE 101	**Porphyrin molecules at interfaces** — •Willi Auwärter
O 55.1	Wed	15:00–15:30	HE 101	**Electronic structure of Organo-Metal Halide Perovskites Films and Interfaces** — •Antoine Kahn
O 56.1	Wed	15:00–15:30	MA 004	**Ultrafast coherent dynamics in photovoltaics** — •Carlo Andrea Rozzi, Sarah Maria Falke, Daniele Brida, Margherita Maiuri, Michele Amato, Ephraim Sommer, Antonietta De Sio, Angel Rubio, Giulio Cerullo, Elisa Molinari, Christoph Lienau
O 57.3	Wed	15:30–16:00	MA 005	**2D silcon materials: From single layer silicene to double-layer structures and multi-layer stacks** — •Patrick Vogt
O 76.1	Thu	9:30–10:15	HE 101	**1D Metal Wires at Surfaces: Preparation, Phase Transitions, and Ultrafast non-Equilibrium Dynamics** — •Michael Horn-von Hoegen
O 78.1	Thu	10:30–11:00	MA 004	**Interaction and Correlation Effects in Quasi Two-dimensional Materials** — •Steven G. Louie
O 79.5	Thu	11:30–12:00	HE 101	**Spin Excitations and Correlations in Individual Molecules on Surfaces** — •Markus Ternes
O 85.1	Thu	15:00–15:30	MA 004	**Natural orbital functional theory with higher-order occupation probabilities** — •Ralph Gebauer, Roberto Car, Morrel Cohen

O 86.1	Thu	15:00–15:30	HE 101	**On-surface synthesis of molecular and polymeric nanostructures** — •J. Michael Gottfried
O 93.1	Fri	9:30–10:15	HE 101	**Ternary oxides: New surfaces structures and surprising interface properties** — •Wolf Widdra
O 96.1	Fri	10:30–11:00	MA 004	**Ultrafast electron dynamics at oxide surfaces: How metallic is a semiconductor?** — •Julia Stähler
O 102.1	Fri	13:15–14:00	HE 101	**Energiewende: Grenzgänge und Grenzflächen** — •Robert Schlögl

Topical Talks

O 18.1	Tue	10:30–11:00	HE 101	**Water adsorption on Ru(0001): A molecular perspective** — •Sabine Maier
O 18.4	Tue	11:30–12:00	HE 101	**Using resonant inelastic soft x-ray scattering maps to study liquids, gases, and their interfaces** — •Lothar Weinhardt
O 18.5	Tue	12:00–12:30	HE 101	**Effect of flow on water organization at solid interfaces** — •Mischa Bonn
O 25.1	Tue	14:00–14:30	HE 101	**First-Principles Microkinetic Modeling at Solid-Liquid Interfaces: First Steps** — •Karsten Reuter
O 25.2	Tue	14:30–15:00	HE 101	**Structure of metal electrode-electrolyte interfaces determined from first principles** — •Axel Gross
O 25.3	Tue	15:00–15:30	HE 101	**Synchrotron x-ray determination of ion distributions at liquid interfaces** — •Jean Daillant
O 25.4	Tue	15:30–16:00	HE 101	**Modelling of electrical double layers at metal oxide electrodes** — •Michiel Sprik, Jun Cheng
O 44.2	Wed	10:45–11:15	HE 101	**Electronic spectroscopy at the solid-liquid interface: a window to electrochemistry and solvation phenomena** — •Miquel Salmeron
O 46.1	Wed	10:30–11:00	MA 001	**Opportunities for THz-pump x-ray-probe experiments at free-electron lasers** — •Wilfried Wurth
O 46.2	Wed	11:00–11:30	MA 001	**Understanding the Ultrafast Insulator-Metal Tranisition in Vanadium Dioxide: An Ultrabroadband Terahertz Perspective** — •Alfred Leitenstorfer, Bernhard Mayer, Alexej Pashkin
O 46.3	Wed	11:30–12:00	MA 001	**Magnetization Dynamics seen via Pump-Probe Holographic X-ray Imaging** — •Stefan Eisebitt
O 46.4	Wed	12:00–12:30	MA 001	**THz induced spin motions probed by x-rays** — •Urs Staub
O 77.1	Thu	10:30–11:00	MA 005	**Photoinduced phase transitions in vanadium dioxide revealed by ultrafast electron diffraction and broadband spectroscopy** — •Bradley Siwick, Vance Morrison, Robert Chatelain, Kunal Tiwari, Ali Hendaoui, Andrew Bruhacs, Mohamed Chaker
O 77.2	Thu	11:00–11:30	MA 005	**Spatial and temporal resolution studies on a highly compact ultrafast electron diffractometer and lattice dynamics in few-layer graphene** — Christian Gerbig, Arne Senftleben, Silvio Morgenstern, Marlene Adrian, Cristian Sarpe, •Thomas Baumert
O 84.1	Thu	15:00–15:30	MA 005	**Femtosecond electron probes for the investigation of structural dynamics and ultrafast currents in nanomaterials** — •Ralph Ernstorfer, Melanie Müller, Lutz Waldecker, Roman Bertoni, Thomas Vasileiadis, Alexander Paarmann
O 84.6	Thu	16:30–17:00	MA 005	**Exploring the Spatial and Temporal Resolution Limits of Ultrafast Electron Microscopy** — •David J. Flannigan, Dayne A. Plemmons, Daniel R. Cremons, David T. Valley
O 84.8	Thu	17:15–17:45	MA 005	**Ultrafast single-electron diffraction and its perspectives** — •Peter Baum

Invited talks of the joint symposium SYOP

See SYOP for the full program of the symposium.

SYOP 1.1	Mon	15:00–15:30	H 0105	**Formation mechanisms of covalent nanostructures** — •Jonas Björk
SYOP 1.2	Mon	15:30–16:00	H 0105	**Selective C-H Activation and C-C coupling on Metal Surfaces** — •Lifeng Chi
SYOP 1.3	Mon	16:00–16:30	H 0105	**On-Surface Synthesis on Insulating Substrates** — •Angelika Kuehnle

SYOP 1.4	Mon	16:45–17:15	H 0105	**On-surface polymerization - a synthetic route to 2D polymers** — •Markus Lackinger
SYOP 1.5	Mon	17:15–17:45	H 0105	**On-surface azide-alkyne click chemistry and a novel metal-organic network based on Cu adatom trimers** — •Trolle Linderoth

Invited talks of the joint symposium SYHM

See SYHM for the full program of the symposium.

SYHM 1.1	Wed	15:00–15:30	H 0105	**Amplitude or Higgs Modes in Condensed Matter** — •Chandra Varma
SYHM 1.2	Wed	15:30–16:00	H 0105	**Higgs Particles for Systems with U(1) Symmetry in Two Dimensions** — •Lode Pollet
SYHM 1.3	Wed	16:00–16:30	H 0105	**Massive Photons and the Anderson-Higgs Mechanism in Superconductors** — •Dirk van der Marel
SYHM 1.4	Wed	16:45–17:15	H 0105	**Amplitude Higgs Mode in $2H$-$NbSe_2$ Superconductor** — •Marie-Aude Méasson, Romain Grasset, Yann Gallais, Max Cazayous, Alain Sacuto, Pierre Rodière, Laurent Cario
SYHM 1.5	Wed	17:15–17:45	H 0105	**The Higgs Mode in Disordered Superconductors Close to a Quantum Phase Transition** — •Aviad Frydman, Daniel Sherman, Uwe S. Pracht, Boris Gorshunov, Martin Dressel

Invited talks of the joint symposium SYME

See SYME for the full program of the symposium.

SYME 1.1	Fri	9:30–10:00	H 0105	**Excitations and charge transfer phenomena in C based systems** — •Elisa Molinari
SYME 1.2	Fri	10:00–10:30	H 0105	**Towards optimal correlation factors for many-electron perturbation theories** — •Andreas Grüneis
SYME 1.3	Fri	10:30–11:00	H 0105	**Towards an ab-initio description of high temperature superconductivity** — •Garnet Chan
SYME 1.4	Fri	11:15–11:45	H 0105	**Correlation effects in unconventional superconductors: from micro- to nano- and macroscales.** — •Roser Valenti
SYME 1.5	Fri	11:45–12:15	H 0105	**Stochastic density functional and GW theories scaling linearly with system size** — •Roi Baer, Daniel Neuhauser, Eran Rabani

Sessions

O 1.1–1.1	Mon	9:30–10:15	HE 101	**Overview Talk (Harald Brune)**
O 2.1–2.9	Mon	10:30–13:15	MA 004	**Surface Magnetism and Spin Phenomena**
O 3.1–3.10	Mon	10:30–13:00	MA 005	**Inorganic/Organic Interfaces: Growth I**
O 4.1–4.11	Mon	10:30–13:15	MA 041	**Electronic Structure of Surfaces I**
O 5.1–5.10	Mon	10:30–13:00	MA 042	**Plasmonics: Nanoantennas, Nanoparticles**
O 6.1–6.10	Mon	10:30–13:15	MA 043	**Catalysis**
O 7.1–7.8	Mon	9:30–11:30	ER 270	**Graphene: THz, NIR and Transport Properties (HL with O/TT)**
O 8.1–8.6	Mon	9:30–11:00	ER 164	**Organic-Inorganic Perovskite Semiconductors (HL with CPP)**
O 9.1–9.5	Mon	11:45–13:00	ER 270	**Transition-Metal Dichalcogenides and Boron Nitride (HL with O/TT)**
O 10.1–10.14	Mon	15:00–18:30	HE 101	**Metal/Water Interfaces: Structure and Reactivity**
O 11.1–11.12	Mon	15:00–18:00	MA 004	**Ultrafast and Nonlinear Plasmonics**
O 12.1–12.13	Mon	15:00–18:15	MA 005	**Inorganic/Organic Interfaces: Growth II**
O 13.1–13.12	Mon	15:00–18:15	MA 041	**Electronic Structure of Surfaces II**
O 14.1–14.12	Mon	15:00–18:00	MA 042	**Oxide Surfaces: Adsorption and Reactivity**
O 15.1–15.13	Mon	15:00–18:15	MA 043	**Scanning Probe Techniques: STM/AFM**
O 16.1–16.9	Mon	15:00–17:15	ER 164	**Graphene: Theory (HL with O/TT)**
O 17.1–17.1	Tue	9:30–10:15	HE 101	**Overview Talk (Eli Rotenberg)**
O 18.1–18.5	Tue	10:30–12:30	HE 101	**Focus Session: Structure, Chemistry, and Ion Solvation at Solid-Liquid Interfaces I**

O 19.1–19.11	Tue	10:30–13:30	MA 004	**Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale I**
O 20.1–20.11	Tue	10:30–13:15	MA 005	**Inorganic/Organic Interfaces: Growth III**
O 21.1–21.10	Tue	10:30–13:00	MA 041	**Graphene: Growth & Intercalation**
O 22.1–22.9	Tue	10:30–13:00	MA 042	**Ultrafast Surface Dynamics**
O 23.1–23.11	Tue	10:30–13:15	MA 043	**Plasmonics and Nanooptics: Structure, Fabrication and Characterization**
O 24.1–24.11	Tue	10:30–13:15	MA 144	**Catalysis: Structural Effects**
O 25.1–25.4	Tue	14:00–16:00	HE 101	**Focus Session: Structure, Chemistry, and Ion Solvation at Solid-Liquid Interfaces II**
O 26.1–26.6	Tue	14:00–15:45	MA 004	**Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale II**
O 27.1–27.9	Tue	14:00–16:15	MA 005	**Nanostructures: Low Dimensions**
O 28.1–28.8	Tue	14:00–16:00	MA 041	**Moire and Graphene Stacking**
O 29.1–29.8	Tue	14:00–16:00	MA 042	**Near-Field Microscopy**
O 30.1–30.8	Tue	14:00–16:00	MA 043	**Inorganic/Organic Interfaces: Towards Application**
O 31.1–31.7	Tue	14:00–15:45	MA 144	**Tribology**
O 32.1–32.8	Tue	18:15–21:00	Poster A	**Surface Magnetism and Spin Phenomena**
O 33.1–33.20	Tue	18:15–21:00	Poster A	**Graphene**
O 34.1–34.11	Tue	18:15–21:00	Poster A	**Metal Substrates: Structure, Epitaxy and Growth**
O 35.1–35.18	Tue	18:15–21:00	Poster A	**Nanostructures at Surfaces**
O 36.1–36.24	Tue	18:15–21:00	Poster A	**Plasmonics and Nanooptics**
O 37.1–37.15	Tue	18:15–21:00	Poster A	**Scanning Probe Techniques**
O 38.1–38.9	Tue	18:15–21:00	Poster A	**Semiconductor Substrates**
O 39.1–39.7	Tue	18:15–21:00	Poster A	**Heterogeneous Catalysis**
O 40.1–40.16	Tue	18:15–21:00	Poster A	**Solid-Liquid Interfaces**
O 41.1–41.49	Tue	18:15–21:00	Poster B	**Inorganic/Organic Interfaces**
O 42.1–42.1	Wed	9:30–10:15	HE 101	**Overview Talk (Leeor Kronik)**
O 43.1–43.10	Wed	10:30–13:15	MA 005	**Inorganic/Organic Interfaces: Electronic Properties I**
O 44.1–44.3	Wed	10:30–11:30	HE 101	**Focus Session: Structure, Chemistry, and Ion Solvation at Solid-Liquid Interfaces III**
O 45.1–45.6	Wed	11:30–13:00	HE 101	**Nonaqueous Liquid/Solid Interfaces**
O 46.1–46.4	Wed	10:30–12:30	MA 001	**Focus Session: THz meets X-ray**
O 47.1–47.11	Wed	10:30–13:30	MA 004	**Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale III**
O 48.1–48.9	Wed	10:30–13:00	MA 041	**Graphene: Dynamics**
O 49.1–49.9	Wed	10:30–12:45	MA 042	**Metal Substrates: Structure, Epitaxy and Growth**
O 50.1–50.10	Wed	10:30–13:00	MA 043	**Coupled Nanostructures and Light Localization**
O 51.1–51.8	Wed	9:30–11:30	ER 270	**Topological Insulators: Theory (HL with DS/MA/O/TT)**
O 52.1–52.6	Wed	11:00–13:00	EW 201	**Focus Session: Nanophotonic Concepts and Materials for Energy Harvesting - Plasmonics, Transformation Optics, Upconversion, and beyond**
O 53.1–53.5	Wed	11:45–13:00	ER 270	**Topological Insulators: Transport (HL with DS/MA/O/TT)**
O 54.1–54.1	Wed	13:15–13:45	HE 101	**Gaede Prize Talk**
O 55.1–55.12	Wed	15:00–18:15	HE 101	**Inorganic/Organic Interfaces: Electronic Properties II**
O 56.1–56.13	Wed	15:00–18:30	MA 004	**Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale IV**
O 57.1–57.10	Wed	15:00–17:45	MA 005	**2D Materials beyond Graphene: TMDCs, Slicene and Relatives**
O 58.1–58.12	Wed	15:00–18:00	MA 041	**Electronic Structure of Surfaces II**
O 59.1–59.13	Wed	15:00–18:15	MA 042	**Oxide and Insulator Surfaces: Structure, Epitaxy and Growth**
O 60.1–60.12	Wed	15:00–18:00	MA 043	**Dielectric and Molecular/Water Interfaces**
O 61.1–61.6	Wed	15:00–16:30	ER 270	**Topological Insulators: Structure and Electronic Structure (HL with DS/MA/O/TT)**
O 62.1–62.8	Wed	16:45–18:45	ER 270	**Graphene: Applications, Luminescence and Spin Relaxation (HL with O/TT)**
O 63.1–63.5	Wed	18:15–21:00	Poster A	**2D Materials beyond Graphene**
O 64.1–64.7	Wed	18:15–21:00	Poster A	**New Methods**
O 65.1–65.10	Wed	18:15–21:00	Poster A	**Oxides and Insulators**
O 66.1–66.17	Wed	18:15–21:00	Poster A	**Electronic Structure of Surfaces**
O 67.1–67.7	Wed	18:15–21:00	Poster A	**Electronic Structure Theory: General, Method Development**

O 68.1–68.10	Wed	18:15–21:00	Poster A	**Electronic Structure Theory: Many-Body Effects**
O 69.1–69.10	Wed	18:15–21:00	Poster A	**Ultrafast Electron and Spin Dynamics**
O 70.1–70.18	Wed	18:15–21:00	Poster A	**Structural Dynamics in Nanoscale Materials Probed by Ultrashort Electron Pulses**
O 71.1–71.5	Wed	18:15–21:00	Poster A	**Surface Dynamics**
O 72.1–72.7	Wed	18:15–21:00	Poster A	**Graphene: Adsorption, Intercalation and Doping**
O 73.1–73.10	Wed	18:15–21:00	Poster A	**Nanostructures at Surfaces: 1D and 2D Structures**
O 74.1–74.6	Wed	18:15–21:00	Poster A	**Oxide and Insulator Surfaces**
O 75.1–75.15	Wed	18:15–21:00	Poster A	**Plasmonics and Nanooptics**
O 76.1–76.1	Thu	9:30–10:15	HE 101	**Overview Talk (Michael Horn-von Hoegen)**
O 77.1–77.8	Thu	10:30–13:15	MA 005	**Focus Session: Structural Dynamics in Nanoscale Materials Probed by Ultrashort Electron Pulses**
O 78.1–78.10	Thu	10:30–13:15	MA 004	**Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale V**
O 79.1–79.9	Thu	10:30–13:00	HE 101	**Scanning Probe Techniques: STM**
O 80.1–80.10	Thu	10:30–13:00	MA 041	**Graphene: Structure**
O 81.1–81.5	Thu	10:30–13:00	MA 042	**Gerhard Ertl Young Investigator Award**
O 82.1–82.12	Thu	10:30–13:30	MA 043	**Nanostructure at Surfaces: Dots and Clusters**
O 83.1–83.12	Thu	10:30–13:30	MA 144	**Surface Chemistry and Growth**
O 84.1–84.10	Thu	15:00–18:15	MA 005	**Focus Session: Structural Dynamics in Nanoscale Materials Probed by Ultrashort Electron Pulses**
O 85.1–85.13	Thu	15:00–18:30	MA 004	**Frontiers of Electronic Structure Theory: Many-Body Effects on the Nano-Scale VI**
O 86.1–86.10	Thu	15:00–17:45	HE 101	**Nanostructure at Surfaces: Molecular Assembly**
O 87.1–87.13	Thu	15:00–18:15	MA 041	**Graphene: Electronic Structure**
O 88.1–88.13	Thu	15:00–18:15	MA 042	**Electronic Structure: Surface Magnetism and Spin Phenomena**
O 89.1–89.14	Thu	15:00–18:30	MA 043	**Inorganic/Organic Interfaces: Molecular Switches**
O 90.1–90.14	Thu	15:00–18:30	MA 144	**Sensing, Active Structures and other Applications**
O 91	Thu	19:00–19:30	HE 101	**Annual General Meeting of the Surface Science Division**
O 92	Thu	19:30–20:30	HE 101	**Post-Deadline Session**
O 93.1–93.1	Fri	9:30–10:15	HE 101	**Overview Talk (Wolf Widdra)**
O 94.1–94.5	Fri	9:30–12:15	H 0105	**Frontiers of Electronic Structure Theory: Many-body Effects on the Nano-scale**
O 95.1–95.13	Fri	9:30–13:15	H 2032	**Metallic nanowires on the atomic scale (DS with O)**
O 96.1–96.8	Fri	10:30–12:45	MA 004	**Ultrafast Electron Dynamics at Surfaces and Interfaces**
O 97.1–97.9	Fri	10:30–12:45	MA 005	**Nanostructure at Surfaces: Structures and Properties**
O 98.1–98.9	Fri	10:30–12:45	MA 041	**Graphene: Intercalation**
O 99.1–99.9	Fri	10:30–12:45	MA 042	**Semiconductor Substrates: Structure, Epitaxy and Growth**
O 100.1–100.10	Fri	10:30–13:00	MA 043	**Metal Substrates: Adsorption and Reactivity**
O 101.1–101.9	Fri	10:30–12:45	MA 144	**Scanning Probe Techniques: AFM**
O 102.1–102.1	Fri	13:15–14:00	HE 101	**Overview Talk (Robert Schlögl)**

Annual General Meeting of the Surface Science Division

Thursday 19:00–19:30 HE 101

- Report of the Chairman
- Presentation of the Gerhard Ertl Young Investigator Award
- Miscellaneous