

## Surface Science Division Fachverband Oberflächenphysik (O)

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### Overview of Invited Talks and Sessions

(lecture rooms H1, H2, H31, H32, H33, H34, H36, H37, H38, H40, H42, H46, H48; poster B1, B2)

#### Invited Talks

O 1.1	Mon	10:15–11:00	H36	<b>Manipulation and assembly of single functional molecules: Towards molecular nanotechnology</b> — ●LEONHARD GRILL
O 9.1	Mon	14:00–14:45	H36	<b>Sub-Wavelength Patterning of Ultrathin Organic Coatings via Nonlinear Laser Processing</b> — ●NILS HARTMANN
O 20.1	Tue	9:30–10:15	H36	<b>Control of Photon Emitters Coupled to Nano-Antennas</b> — ●NIEK F. VAN HULST
O 31.1	Tue	14:00–14:45	H36	<b>Rare earth silicide nanowires on silicon surfaces</b> — ●MARIO DÄHNE
O 42.1	Wed	9:30–10:15	H36	<b>Electrons in quasi two dimensions: Revelations from photoemission mapping, microscopy, and filming</b> — ●KAI ROSSNAGEL
O 51.1	Wed	14:00–14:45	H36	<b>Photonic Metamaterials: Novel Optics with Artificial Atoms</b> — ●STEFAN LINDEN
O 61.1	Thu	9:30–10:15	H36	<b>Shining light on catalysis</b> — ●JEROEN A. VAN BOKHOVEN
O 70.1	Thu	14:00–14:45	H36	<b>Sensing and controlling the spin of an atom by electric current</b> — ●SEBASTIAN LOTH
O 81.1	Fri	10:15–11:00	H36	<b>Towards the computational design of heterogeneous catalysts</b> — ●THOMAS BLIGAARD
O 89.1	Fri	13:30–14:15	H36	<b>Evidence for exciton condensation in layered TiSe<sub>2</sub>: A photoemission study</b> — ●PHILIPP AEBI
O 90.1	Fri	14:15–15:00	H36	<b>Surface Science and Electrocatalysis - Where do we stand?</b> — ●R. JÜRGEN BEHM

#### Invited Talks Focussed Session Solid/Liquid Interfaces

O 64.1	Thu	10:30–11:00	H33	<b>Metal/Electrolyte interfaces under atmospheric corrosion conditions</b> — ●MICHAEL ROHWERDER
O 64.2	Thu	11:00–11:30	H33	<b>Copper Damascene Process: From the wafer to the atomic scale</b> — ●ALEXANDER FLÜGEL
O 64.3	Thu	11:30–12:00	H33	<b>Atomic-scale dynamics and interactions at solid-liquid interfaces</b> — ●OLAF MAGNUSSEN
O 73.1	Thu	15:00–15:30	H33	<b>Theoretical studies on the electrocatalytic Oxygen reduction reaction on Pt</b> — ●TIMO JACOB
O 73.2	Thu	15:30–16:00	H33	<b>Investigations on Pt based catalysts for PEM fuel cells: from model systems to high surface area catalysts</b> — ●MATTHIAS ARENZ
O 73.3	Thu	16:00–16:30	H33	<b>Computer Simulation of Electrolyte / Solid Interfaces</b> — ●ECKHARD SPOHR

#### Invited talks of the joint symposium SYPN

See SYPN for the full program of the Symposium.

SYPN 1.1	Thu	9:30–10:00	H1	<b>Growth and applications of N-polar (Al,Ga,In)N</b> — ●STACIA KELLER, UMesh K MISHRA
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SYPN 1.2	Thu	10:00–10:30	H1	<b>Green light-emitting diodes and laser heterostructures on semi-polar GaN(11-22)/sapphire substrates</b> — ●ANDRE STRITTMATTER
SYPN 1.3	Thu	10:30–11:00	H1	<b>Pros and cons of green InGaN lasers on polar GaN substrates</b> — ●UWE STRAUSS, ADRIAN AVRAMESCU, TERESA LERMER, JENS MÜLLER, CHRISTOPH EICHLER, STEPHAN LUTGEN
SYPN 1.4	Thu	11:15–11:45	H1	<b>Molecular beam epitaxy as a method for the growth of free-standing zinc-blende GaN layers and substrates.</b> — ●SERGEI NOVIKOV, THOMAS FOXON, ANTHONY KENT
SYPN 1.5	Thu	11:45–12:15	H1	<b>Three-dimensional GaN for semipolar light emitters</b> — ●THOMAS WUNDERER, FRANK LIPSKI, STEPHAN SCHWAIGER, FERDINAND SCHOLZ, MARTIN FENEBERG, KLAUS THONKE, ANDREY CHUVILIN, UTE KAISER, SEBASTIAN METZNER, FRANK BERTRAM, JÜRGEN CHRISTEN, CLEMENS VIERHEILIG, ULRICH SCHWARZ

### Invited talks of the joint symposium SYDF

See SYDF for the full program of the Symposium.

SYDF 1.1	Thu	14:45–15:15	H1	<b>Downfolded Self-Energy of Many-Electron Systems and the Hubbard U</b> — ●FERDI ARYASETIAWAN
SYDF 1.2	Thu	15:15–15:45	H1	<b>LDA+Gutzwiller method for correlated electron systems</b> — ●ZHONG FANG
SYDF 1.3	Thu	15:45–16:15	H1	<b>Localized and itinerant states in <math>d/f</math>-electron systems unified by <math>GW@LDA+U</math></b> — ●HONG JIANG
SYDF 1.4	Thu	16:30–17:00	H1	<b>Giant polaronic effects in solids and nanostructures</b> — ●ANDREA MARINI
SYDF 1.5	Thu	17:00–17:30	H1	<b>Excitation energies with time-dependent density <i>matrix</i> functional theory</b> — ●EVERT JAN BAERENDS, KLAAS J. H. GIESBERTZ, OLEG GRITSENKO, KATARZYNA PERNAL
SYDF 1.6	Thu	17:30–18:00	H1	<b>Calculations of multipoles in magnetic metals and insulators</b> — ●LARS NORDSTRÖM

### Invited talks of the joint symposium SYNT

See SYNT for the full program of the Symposium.

SYNT 1.1	Fri	10:15–10:45	H1	<b>Atomic friction under ultrahigh vacuum conditions</b> — ●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	<b>Layering and Squeeze-out Damping in Confined Liquid Films</b> — ●FRIEDER MUGELE
SYNT 1.3	Fri	11:15–11:45	H1	<b>Wear on the nanoscale: mechanisms and materials</b> — ●BERND GOTSMANN, MARK A. LANTZ, HARISH BHASKARAN, ABU SEBASTIAN, UTE DRECHSLER, MICHEL DESPONT, YUN CHEN, KUMAR SRIDHARAN, PAPOT JAROENAPIBAL, ROBERT CARPICK
SYNT 1.4	Fri	11:45–12:15	H1	<b>Friction at the Nanoscale: Insights from Atomistic Simulations</b> — ●IZABELA SZLUFARSKA, YIFEI MO, YUN LIU, MANEESH MISHRA
SYNT 1.5	Fri	12:15–12:45	H1	<b>The friction of wrinkles</b> — ●MARTIN H. MÜSER, HAMID MOHAMMADI
SYNT 1.6	Fri	12:45–13:15	H1	<b>Influence of humidity on nano- and micromechanical contact adhesion</b> — ●HANS-JÜRGEN BUTT

### Sessions

O 1.1–1.1	Mon	10:15–11:00	H36	<b>Invited talk (Grill, Leonhard)</b>
O 2.1–2.7	Mon	11:15–13:00	H31	<b>Metal substrates: Solid-liquid interfaces</b>
O 3.1–3.7	Mon	11:15–13:00	H32	<b>Methods: Scanning probe techniques I</b>
O 4.1–4.7	Mon	11:15–13:00	H33	<b>Heterogeneous catalysis I</b>
O 5.1–5.7	Mon	11:15–13:00	H34	<b>Electron and spin dynamics I</b>
O 6.1–6.7	Mon	11:15–13:00	H36	<b>Metal substrates: Adsorption of organic / bio molecules I</b>
O 7.1–7.6	Mon	11:15–12:45	H38	<b>Spin-Orbit Interaction at Surfaces I</b>

O 8.1–8.9	Mon	10:15–12:30	H8	[DS] Organic Electronics and Photovoltaics I (Joint Session DS/ CPP/ HL/ O)
O 9.1–9.1	Mon	14:00–14:45	H36	Invited talk (Hartmann, Nils)
O 10.1–10.9	Mon	15:00–17:15	H31	Methods: Electronic structure theory & Methods: other (theory)
O 11.1–11.10	Mon	15:00–17:30	H32	Methods: Scanning probe techniques II
O 12.1–12.11	Mon	15:00–17:45	H33	Oxides and insulators: Adsorption
O 13.1–13.11	Mon	15:00–17:45	H34	Semiconductor substrates: Adsorption
O 14.1–14.11	Mon	15:00–17:45	H36	Metal substrates: Adsorption of organic / bio molecules II
O 15.1–15.9	Mon	15:00–17:15	H38	Spin-Orbit Interaction at Surfaces II
O 16.1–16.10	Mon	15:00–17:30	H46	Organic, polymeric, biomolecular films - also with adsorbates
O 17.1–17.6	Mon	14:00–15:30	H8	[DS] Organic Electronics and Photovoltaics II (Joint Session DS/ CPP/ HL/ O)
O 18.1–18.7	Mon	16:00–17:45	H15	[HL] Organic Semiconductors: Solar Cells (Joint Session DS/ CPP/ HL/ O)
O 19.1–19.6	Mon	14:00–17:45	H1	Symposium Spin-Orbit Coupling and Spin Relaxation in Graphene and Carbon Nanotubes
O 20.1–20.1	Tue	9:30–10:15	H36	Invited talk (Van Hulst, Niek)
O 21.1–21.10	Tue	10:30–13:00	H2	[DS] Plasmonics and Nanophotonics I (Joint Session DS/ O/ HL)
O 22.1–22.9	Tue	10:30–12:45	H32	Methods: Scanning probe techniques III
O 23.1–23.10	Tue	10:30–13:00	H33	Nanostructures at surfaces: Dots, particles, clusters
O 24.1–24.8	Tue	10:30–12:30	H34	Particles and clusters
O 25.1–25.10	Tue	10:30–13:00	H36	Metal substrates: Adsorption of organic / bio molecules III
O 26.1–26.9	Tue	10:30–12:45	H40	Oxides and insulators: Clean surfaces
O 27.1–27.8	Tue	10:30–12:30	H42	Metal substrates: Adsorption of O and/or H
O 28.1–28.10	Tue	10:30–13:00	H48	Surface or interface magnetism
O 29.1–29.12	Tue	9:30–12:45	H37	[CPP] Organic Electronics and Photovoltaics I (Joint Session DS/ CPP/ HL/ O)
O 30.1–30.12	Tue	9:30–12:45	H15	[HL] Organic Semiconductors: Transistors and OLEDs (Joint Session DS/ CPP/ HL/ O)
O 31.1–31.1	Tue	14:00–14:45	H36	Invited talk (Dähne, Mario)
O 32.1–32.6	Tue	15:00–16:30	H2	Plasmonics and Nanophotonics II (Joint Session O/ DS/ HL)
O 33.1–33.6	Tue	15:00–16:30	H31	Nanostructures at surfaces: arrays
O 34.1–34.5	Tue	15:00–16:15	H32	Methods: Scanning probe techniques IV
O 35.1–35.6	Tue	15:00–16:30	H33	Heterogeneous catalysis II
O 36.1–36.4	Tue	15:00–16:00	H34	Methods: Atomic and electronic structure
O 37.1–37.6	Tue	15:00–16:30	H36	Metal substrates: Adsorption of organic / bio molecules IV
O 38.1–38.4	Tue	15:00–16:00	H40	Semiconductor substrates: clean surfaces
O 39.1–39.5	Tue	15:00–16:15	H42	Phase transitions
O 40.1–40.10	Tue	13:45–16:15	H37	[CPP] Organic Electronics and Photovoltaics II (Joint Session DS/ CPP/ HL/ O)
O 41.1–41.120	Tue	18:30–21:00	Poster B1	Poster Session I (Semiconductor Substrates: Epitaxy and growth; Semiconductor Substrates: Adsorption; Semiconductor Substrates: Solid-liquid interfaces; Semiconductor Substrates: Clean surfaces; Oxides and insulators: Epitaxy and growth; Oxides and insulators: Adsorption; Oxides and insulators: Clean surfaces; Organic, polymeric and biomolecular films - also with adsorbates; Organic electronics and photovoltaics, Surface chemical reactions; Heterogeneous catalysis; Phase transitions; Particles and clusters; Surface dynamics; Surface or interface magnetism; Electron and spin dynamics; Spin-Orbit Interaction at Surfaces; Electronic structure; Nanotribology; Solid/liquid interfaces; Graphene; Others)
O 42.1–42.1	Wed	9:30–10:15	H36	Invited talk (Rossnagel, Kai)
O 43.1–43.9	Wed	10:30–12:45	H31	Graphene I
O 44.1–44.11	Wed	10:30–13:15	H32	Plasmonics and Nanooptics III
O 45.1–45.9	Wed	10:30–12:45	H33	Electronic structure I
O 46.1–46.11	Wed	10:30–13:15	H34	Density functional theory and beyond for real materials I
O 47.1–47.10	Wed	10:30–13:00	H36	Metal substrates: Adsorption of organic / bio molecules V
O 48.1–48.9	Wed	10:30–12:45	H40	Surface dynamics I

O 49.1–49.9	Wed	10:30–12:45	H42	Surface chemical reactions I
O 50.1–50.12	Wed	9:30–12:45	H37	[CPP] Organic Electronics and Photovoltaics III (Joint Session DS/CPP/HL/O)
O 51.1–51.1	Wed	14:00–14:45	H36	Gaede-Prize talk (Linden, Stefan)
O 52.1–52.9	Wed	15:00–17:15	H31	Graphene II
O 53.1–53.11	Wed	15:00–17:45	H32	Plasmonics and Nanooptics IV
O 54.1–54.9	Wed	15:00–17:15	H33	Electronic structure II
O 55.1–55.9	Wed	15:00–17:15	H34	Density functional theory and beyond for real materials II
O 56.1–56.10	Wed	15:00–17:30	H36	Metal substrates: Adsorption of organic / bio molecules VI
O 57.1–57.10	Wed	15:00–17:30	H40	Surface dynamics II
O 58.1–58.10	Wed	15:00–17:30	H42	Surface chemical reactions II
O 59.1–59.117	Wed	17:45–20:30	Poster B1	Poster Session II (Nanostructures at surfaces: Dots, particles, clusters; Nanostructures at surfaces: arrays; Nanostructures at surfaces: Wires, tubes; Nanostructures at surfaces: Other; Plasmonics and nanooptics; Metal substrates: Epitaxy and growth; Metal substrates: Solid-liquid interfaces; Metal substrates: Adsorption of organic / bio molecules; Metal substrates: Adsorption of inorganic molecules; Metal substrates: Adsorption of O and/or H; Metal substrates: Clean surfaces; Density functional theory and beyond for real materials)
O 60.1–60.35	Wed	17:45–20:30	Poster B2	Poster Session III (Methods: Atomic and electronic structure; Methods: electronic structure theory; Methods: Molecular simulations and statistical mechanics; Methods: Scanning probe techniques; Methods: other (experimental); Methods: other (theory) )
O 61.1–61.1	Thu	9:30–10:15	H36	Invited talk (Van Bokhoven, Jeroen)
O 62.1–62.8	Thu	10:30–12:30	H31	Graphene III
O 63.1–63.10	Thu	10:30–13:00	H32	Plasmonics and Nanooptics V
O 64.1–64.7	Thu	10:30–13:00	H33	Solid/liquid interfaces I (focussed session)
O 65.1–65.11	Thu	10:30–13:15	H34	Density functional theory and beyond for real materials III
O 66.1–66.7	Thu	10:30–12:15	H36	Nanotribology I
O 67.1–67.5	Thu	10:30–13:00	H37	Gerhard Ertl Young Investigator Award (talks of the selected candidates)
O 68.1–68.10	Thu	10:30–13:00	H42	Semiconductor substrates: Epitaxy and growth
O 69.1–69.5	Thu	9:30–12:15	H1	Symposium Polarization Field Control in Group-III-Nitrides
O 70.1–70.1	Thu	14:00–14:45	H36	Invited talk (Loth, Sebastian)
O 71.1–71.12	Thu	15:00–18:00	H31	Metal substrates: Epitaxy and growth
O 72.1–72.12	Thu	15:00–18:00	H32	Plasmonics and Nanooptics VI
O 73.1–73.8	Thu	15:00–17:45	H33	Solid/liquid interfaces II (focussed session)
O 74.1–74.12	Thu	15:00–18:00	H34	Nanostructures at surfaces: Other
O 75.1–75.8	Thu	15:00–17:00	H36	Nanotribology II
O 76.1–76.9	Thu	15:00–17:15	H38	Nanostructures at surfaces: Wires, tubes
O 77.1–77.12	Thu	15:00–18:00	H42	Oxides and insulators: Epitaxy and growth
O 78.1–78.6	Thu	14:45–18:00	H1	Symposium Density functional theory and beyond for real materials
O 79	Thu	19:30–20:00	H1	General Meeting of the Surface Science Division
O 80	Thu	20:00–21:00	H1	Post Deadline Session
O 81.1–81.1	Fri	10:15–11:00	H36	Invited talk (Bligaard, Thomas)
O 82.1–82.7	Fri	11:15–13:00	H31	Graphene IV
O 83.1–83.7	Fri	11:15–13:00	H32	Plasmonics and Nanooptics VII
O 84.1–84.8	Fri	11:15–13:15	H34	Density functional theory and beyond for real materials IV
O 85.1–85.7	Fri	11:15–13:00	H36	Metal substrates: Adsorption of organic / bio molecules VII
O 86.1–86.6	Fri	11:15–12:45	H40	Organic, electronics and photovoltaics
O 87.1–87.6	Fri	11:15–12:45	H42	Methods: Other (experimental)
O 88.1–88.6	Fri	10:15–13:15	H1	Symposium Nanotribology
O 89.1–89.1	Fri	13:30–14:15	H36	Invited talk (Aebi, Philipp)
O 90.1–90.1	Fri	14:15–15:00	H36	Invited talk (Behm, Jürgen)

## Annual General Meeting of the Surface Science Division

Thursday 19:30– 20:00 H1

- Report of the Chairman of the DPG Surface Science Division
- Miscellaneous

### Post deadline session

Post deadline session O80 on Thursday 20:00-21:00 in H1, followed by the Surface Science "get-together".