

DESY PHOTON SCIENCE USERS' MEETING.



26 - 28 January 2022 - DESY Auditorium **DRAFT!**

Time zone: CET Europe/Hamburg

Friday, 21 January 2022 / Monday, 24 January 2022
Users' Meeting - Workshops

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| 9.00 – 18.00 | Users' Meeting Workshops |
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Tuesday, 25 January 2022
Users' Meeting - Workshops

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| 9.00 – 18.00 | Users' Meeting Workshops |
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Wednesday, 26 January 2022
European XFEL Users' Meeting and Poster Session

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| 10.00 – 17.00 | European XFEL Users' Meeting |
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| 17.00 – 19.00 | Scientific POSTER Session 1 |
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Thursday, 27 January 2022
DESY Photon Science Users' Meeting - FLASH and FLASH 2020+

Chairs: R. Treusch/S. Toileikis (DESY)

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| 9.00 – 9.10 | Welcome - FLASH session | E. Weckert (DESY) |
| 9.10 – 9.40 | News from FLASH – a look back on the past year and towards upcoming developments | E. Plönjes (DESY) |
| 9.40 – 10.10 | Moving toward the new FLASH2020+ facility | L. Schaper (DESY) |
| 10.10 – 10.40 | <i>Coffee break</i> | |

Chairs: G. Brenner/S. Düsterer (DESY)

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| 10.40 – 11.10 | Direct observation of charge separation in an organic light harvesting system by femtosecond time-resolved XPS | F. Roth (TU Bergakademie Freiberg) |
| 11.10 – 11.40 | Transient depth magnetic profiling thanks to time-resolved soft X-ray resonant magnetic reflectivity | E. Jal (LCPMR, Sorbonne Université, France) |
| 11.40 – 12.10 | Non-linear X-ray spectroscopy on solids | M. Beye (DESY) |
| 12.10 – 12.40 | Photo-electron-resolved data streams in multidimensional momentum microscopy at FLASH | S. Y. Agustsson (Univ. Mainz) |
| 12.40 – 14.00 | <i>Lunch</i> | |

| Joint Soft X-ray FEL Session | | |
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| | | <i>Chairs: M. Meyer (EuXFEL)</i> |
| 14.00 – 14.30 | Double core hole dynamics of the H ₂ O molecule in the gas phase | M. Simon (LCPMR Paris) |
| 14.30 – 15.00 | Real-time observation of a correlation-driven sub 3 fs charge migration in ionised adenine | F. Calegari (DESY) |
| 15.00 – 15.10 | News from the 'Committee Research with Synchrotron Radiation' (KFS) | J.-D. Grunwaldt, KFS Chair, (KIT Karlsruhe) |
| 15.10 – 15.30 | <i>Coffee break</i> | |
| | | <i>Chairs: U. Frühling/R. Treusch (DESY)</i> |
| 15.30 – 16.00 | Optical control of 4f orbital state in rare-earth metals | N. Thielemann-Kühn (FU Berlin) |
| 16.00 – 16.30 | Most advanced photon beams for users from a seeded FEL | L. Giannessi (Elettra-Sincrotrone Trieste) |
| 16.30 – 16.40 | Report of the 'European synchrotron and FEL user organisation' (ESUO) | C. McGuinness, ESUO president, (Trinity College Dublin) |
| 17.00 – 19.00 | Scientific POSTER Session 2 | |

Friday, 28 January 2022 DESY Photon Science Users' Meeting 2022

Chairs: S. Bari/M. Schnell (DESY)

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| 9.00 – 9.15 | Welcome | H. Dosch (DESY) |
| 9.15 – 9.45 | Overview DESY Photon Science | E. Weckert (DESY) |
| 9.45 – 10.15 | PETRA III | O. Seeck (DESY) |
| 10.15 – 10.45 | <i>Coffee break</i> | |
| | | <i>Chairs: S. Techert/H-C. Wille (DESY)</i> |
| 10.45 – 11.30 | PETRA IV upgrade project: status of technical design and beamline portfolio | C. Schroer (DESY, Univ. Hamburg) |
| 11.30 – 12.00 | X-ray methods bridge the molecular and macro-length scales in colloidal nanoscience | D. Koziej (Univ. Hamburg) |
| 12.00 – 12.15 | <i>Report of the 'DESY Photon Science User Committee' (DPS-UC)</i> | P. Müller-Buschbaum, DPS-UC Chair, (TU München) |
| 12.15 – 13.30 | <i>Lunch</i> | |
| | | <i>Chairs: G. Grübel/E. Weckert (DESY)</i> |
| 13.30 – 13:45 | Investigation of pH-responsiveness inside lipid nanoparticles for parenteral mRNA application using small-angle X-ray scattering (<i>Part 1</i>) | P. Langguth (Univ. Mainz) |
| 13.45 – 14:00 | Investigation of pH-responsiveness inside lipid nanoparticles for parenteral mRNA application using small-angle X-ray scattering (<i>Part 2</i>) | H. Haas (BioNTech SE, Mainz) |
| 14.00 – 14.30 | High-sensitivity quantitative X-ray phase-contrast imaging for biomedical applications | J. Herzen (TU München) |
| 14.30 – 15.00 | Studying the fragmentation of polymerisation catalyst particles by X-ray nanotomography | F. Meirer (Utrecht University) |
| 15.00 – 15.30 | In situ and operando scattering studies on perovskite solar cells | P. Müller-Buschbaum (TU München) |