

 SATELLITE WORKSHOP - Photon Science

 **High Energy X-ray Diffraction for Physics and Chemistry at Beamlines P07-DESY & P21.1**

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| Friday, 24 January 2025 |  |
| High energy X-ray diffraction and scattering based techniques play a major role in many scientific fields incl. physics, chemistry, and materials science. In particular, they enable complex in situ and operando experiments and the analysis of local (dis)order on atomic scale. We are going to present and discuss the current and future capabilities available at the high-energy scattering and diffraction beamlines P07-DESY and P21.1 based primarily on the techniques of total scattering, single-crystal diffraction, surface diffraction and x-ray diffraction computed tomography. Reports on key experiments will demonstrate the wide spectrum of scientific applications. This workshop aims at bringing together experienced users, interested researchers, and beamline staff.  |

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|  Organizers: Ann-Christin Dippel, Martin v. Zimmermann | Contact: ann-christin.dippel@desy.de  martin.v.zimmermann@desy.de |

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| **PROGRAM**  |
| 9:00 | Introduction | Martin v. Zimmermann | DESY |
| 9:15 | Status and new developments at the high energy X-ray diffraction station P07-DESY | Ann-Christin Dippel` | DESY |
| 9:45 | Status and Developments at the High Energy X-Ray Diffraction for Physics and Chemistry beamline P21.1 | Fernando Igoa Saldaña | DESY |
| **10:15** | **Coffee break** |  |  |
| 10:45  | 'In situ X-ray Study on Cation-Site Disordered Cu3PdN Nanocrystals for Hydrogen Evolution Electrocatalysis  | Sani Harouna-Mayer |  University of Hamburg |
| 11:15 | Discovery of Giant Unit-Cell Super-Structure in the Infinite-Layer Nickelate PrNiO2+x | Jens Matthias Oppliger,  | University of Zürich |
| 11:45 | Optimizing Self-Cleaning Surfaces: Growth and Oxidation of Cu Nanoparticles on rutile TiO2(110) | Silvan Dolling | DESY NanoLab |
| 12:15 | tbd | Fan Yang | German Aerospace Center (DLR) |
| 12:45 | Discussion |  |  |