

# XFEL applications in Material Sciences and Nanotechnology

Thursday - December 5th, 2024

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| 9:30  | Registration and Coffee<br>30 min.  |
| 10:00 | Opening – Bartłomiej Witkowski - Deputy Director for Scientific Affairs, Ryszard Sobierajski - Leader of the XFEL-Hub Poland (Institute of Physics, PAS)<br>15 min. |
| 10:15 | "X-ray free electron lasers: overview, common applications and novel scientific opportunities"<br>Peter Zalden<br>(European XFEL GmbH, Germany)<br>40 min.          |
| 10:55 | "Scientific opportunities with XFELs in the field of High Energy Density Physics"<br>Ulf Zastra<br>(European XFEL GmbH, Germany)<br>40 min.                         |
| 11:35 | Coffee break<br>20 min.   |
| 11:55 | "Diamond anvil cell research at the High Energy Density instrument of European XFEL"<br>Cornelius Strohm<br>(Deutsches Elektronen Synchrotron, Germany)<br>40 min.  |
| 12:35 | Polish researchers presentations<br>60 min.   |
| 13:35 | Lunch<br>70 min   |
| 14:45 | "High pressure Shock-wave compression"<br>Ulf Zastra<br>(European XFEL GmbH, Germany)<br>40 min.  |
| 15:25 | "Irreversible material dynamics studied with time-resolved X-ray scattering"<br>Klaus Sokolowski-Tinten<br>(University of Duisburg-Essen, Germany)<br>40 min.       |
| 16:05 | Coffee break<br>20 min.   |
| 16:25 | "Support for Polish XFEL users"<br>Katarzyna Jarzemska<br>(University of Warsaw)<br>30 min.   |
| 19:00 | Dinner  |

Friday - December 6th, 2024

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| 9:00  | Registration and Coffee<br>30 min.   |
| 9:30  | "Ultrafast nanomagnetism"<br>Herman Duerr<br>(Uppsala University, Sweden)<br>40 min.   |
| 10:10 | "Pulsed high magnetic fields at the High Energy Density instrument of European XFEL"<br>Cornelius Strohm<br>(Deutsches Elektronen Synchrotron, Germany)<br>20 min.   |
| 10:30 | Coffee break<br>20 min.  |
| 10:50 | "Magnetic coherent diffraction of domain excitations in Sr <sub>2</sub> IrO <sub>4</sub> iridate"<br>Ian Robinson<br>(University College, United Kingdom)<br>40 min. |
| 11:30 | Polish researchers presentations<br>60 min.  |
| 12:30 | Lunch<br>70 min  |
| 13:40 | "Colloidal nanoparticles"<br>Yohei Uemura<br>(European XFEL GmbH, Germany)<br>40 min.  |
| 14:20 | "Structural dynamics in nanoscale laser processing"<br>Anton Plech<br>(Karlsruhe Institute of Technology, Germany)<br>40 min.  |
| 15:00 | Coffee break<br>20 min.  |
| 15:20 | Polish researchers presentations<br>30 min.  |
| 15:50 | Closing – Ryszard Sobierajski - Leader of the XFEL-Hub Poland (Institute of Physics, PAS)  |

