

## Status of the HED instrument and the HIBEF contributions and scientific highlights

23.1.2024 at 13:00 – Location: EuXFEL, XHO building

*Meeting in person and virtual*

The HED instrument, in cooperation with the HIBEF user consortium, offers different experimental opportunities in the field of high-pressure science, plasma physics and in near future high magnetic fields. Latest results of selected user experiments as well as status of the experimental opportunities will be represented. In this year we additionally draw also the attention to new experimental opportunities under development.

Organiser: Ulf Zastrau  
Carsten Baehz

Contact: [ulf.zastrau@xfel.eu](mailto:ulf.zastrau@xfel.eu)  
[c.baehz@hzdr.de](mailto:c.baehz@hzdr.de)

Date			
13:00	Welcome	U. Zastrau	European XFEL
13:20	Experiments using cryogenic liquid jets at HED	S. Goede	European XFEL
13:40	First results with DiPOLE on HED	M. McMahon	Uni. Edinburgh
14:00	Spatial and Temporal Ionization Dynamics of Relativistic Laser Plasma	M. Mishchenko	European XFEL
14:15	Visualizing Plasmons and Ultrafast Kinetic Instabilities in Laser-Driven Solids using X-ray Scattering	P. Ordyna	HZDR
14:30	Coffee break		
15:15	Understanding femtosecond laser heating mechanisms of warm dense matter (by ZOOM)	S. Malko	PPPL
15:35	Imaging shocks generated by short-pulse laser irradiation of matter	A. Laso Garcia	HZDR
15:55	Melting Curve and Phase Stability of Carbon (by ZOOM)	C. Prescher	Uni. Freiburg
16:15	Discovery of a new ice phase and multiple pathways of supercompressed water	G.W. Lee	KRISS
16:35	Status of the HIBEF UC	T. Cowan	HZDR
	Open discussion		
Approx. 18:30	Dinner in BeamStop		