European XFEL Users' Meeting — Satellite meeting

High Rep Rate Fixed Target Delivery: Chip standardization and workflow

23. January 2023, 9:00 – 19:00

Hybrid Meeting (On-site & Zoom)

Modern X-ray sources offer the possibility to perform single shot experiments with high repetition rates. To enable sample delivery of fixed-targets with rates of up to 10Hz, the positions of the samples have to be known prior the experiment. In this workshop we will discuss strategies to standardize sample mounts and position descriptions. We will propose possible approaches to the necessary tasks.

Organizers: C. Deiter, J. Beale, E. Round

Contact: carsten.deiter@xfel.eu

23. January 2023			
9:00 – 12:30	**Session A - Sample pre-characterization for high rep rate fixed-target delivery**		
9:00	Welcome and introduction	J. Schulz	European XFEL
9:10	Status of the procedures for fixed-targets at the instruments of the European XFEL	C. Deiter	European XFEL
9:50	The use of fixed-targets for biological applications	M. Carrillo	PSI
10:30	Coffee break		
10:50	The unified workflow for fixed-targets at the European XFEL	C. Deiter	European XFEL
11:20	Sample recognition and localization	A. Kardoost	European XFEL
11:50	Open discussion – collection of demands, comments and ideas	J. Schulz	European XFEL
12:20	Summery of the discussion	J. Moore	European XFEL
12:30	Lunch break		
14:00-18:30	**Session B - Standardizing the use of micro-pattern, large area fixed-target for SSX and SFX applications**		
14:00	Introduction and summary of session A	D. de Sanctis	ESRF
14:15	The use of fixed-targets in SSX and SFX	J. Beale	PSI
14:45	Direct questions and discussion		
15:05	Proposed fixed-target dictionary	R. Owen	DLS
15:25	Direct questions and discussion		
15:55	Coffee break		
16:25	What else could be standardized across facilities?	D. de Sanctis	ESRF
16:55	Direct questions and discussion		
17:25	What kind of meta-data would it help to record to improve fixed target SSX / SFX?	A. Pearson	University of Hamburg
17:45	Direct questions and discussion		
18:05	Sum-up and actions		
19:00	Dinner		