

European XFEL

Holzknappel 4
22869 Schenefeld
Germany



Deutsches Elektronen-Synchrotron DESY

Notkestraße 85
22607 Hamburg
Germany



Updated 24 March 2021

Agenda for the Cavity-based X-ray FEL Workshop 24-26 March 2021

Wednesday, 24 March 2021

15:00pm – 19:45pm CET (Hamburg, DE)

7:00am – 11:45am PDT (Sacramento, USA)

23:00pm – 03:45am JST (Tokyo, JP)

CET	PDT	JST		
15:00	07:00	23:00	Welcome	R. Feidenhans'l (EuXFEL)
			Session chair	W. Decking (DESY)
15:05	07:05	23:05	<i>Preliminary studies of an x-ray regenerative amplifier free electron laser at the LCLS FEL complex</i>	G. Marcus (SLAC)
15:25	07:25	23:25	<i>Discussion</i>	
15:35	07:35	23:35	<i>X-ray FEL oscillators for ultra-narrowband applications</i>	R. Lindberg (ANL)
15:55	07:55	23:55	<i>Discussion</i>	
16:05	08:05	00:05	<i>XFEL at DLSR</i>	I. Agapov (DESY)
16:25	08:25	00:25	<i>Discussion</i>	
16:35	08:35	00:35	Break	
			Session chair	Kwang-Je Kim (ANL)
17:05	09:05	01:05	<i>LCLS-II & CBXFEL</i>	Zhirong Huang (SLAC)
17:25	09:25	01:25	<i>Discussion</i>	
17:35	09:35	01:35	<i>A CBXFEL demonstrator for the European XFEL</i>	P. Rauer (DESY)
17:55	09:55	01:55	<i>Discussion</i>	
18:05	10:05	02:05	Science Application – Frontier X-ray Science Areas	G. Aeppli (PSI)
			<i>Towards the arbitrary X-ray Waveform Generator</i>	
18:25	10:25	02:25	<i>Discussion</i>	
18:35	10:35	02:35	Break	
			Session chair	J. Hastings (SLAC)
18:45	10:45	02:45	Science Application – Quantum Optics	J. Evers (U Heidelberg)
			<i>Nuclear quantum optics with cavity-based X-ray FELs</i>	
19:05	11:05	03:05	<i>Discussion</i>	
19:15	11:15	03:15	Science Application – Complex Materials, quantum phases	B. Keimer (MPI Stuttgart)
			<i>Spin and charge excitations in ruthenates probed by IRIXS</i>	
19:35	11:35	03:35	<i>Discussion</i>	
19:45	11:45	03:45	End of day 1	

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Thursday, 25 March 2021

15:00pm – 19:30pm CET (Hamburg, DE)

7:00am – 11:30am PDT (Sacramento, USA)

23:00pm – 03:30am JST (Tokyo, JP)

CET	PDT	JST		
15:00	07:00	23:00	Welcome	T. Tschentscher (EuXFEL)
			Session Chair	H. Sinn (EuXFEL)
15:05	07:05	23:05	<i>X-ray Optics for Cavity-Based XFELs</i>	Y. Shvydko (ANL)
15:25	07:25	23:25	<i>Discussion</i>	
15:35	07:35	23:35	<i>Alignment Diagnostics and In/Out Coupling Mechanism for X-ray Cavities</i>	Diling Zhu (SLAC)
15:55	07:55	23:55	<i>Discussion</i>	
16:05	08:05	00:05	<i>X-ray oscillator scheme for amplified fluorescence emission</i>	A. Benediktovitch (DESY)
16:25	08:25	00:25	<i>Discussion</i>	
16:35	08:35	00:35	Break	
			Session chair	J. Hastings (SLAC)
17:05	09:05	01:05	<i>What can be learned from LIGO cavity technology</i>	S. Köhlerbeck (AEI)
17:25	09:25	01:25	<i>Discussion</i>	
17:35	09:35	01:35	Extended Technical Discussion (45 mins)	Hastings, Sinn, Kim, Decking
18:20	10:20	02:20	Break	
			Session chair	A. Madsen (EuXFEL)
18:30	10:30	02:30	Science Application – Stoch. dynamics, Disordered systems <i>The importance of longitudinal coherence for MHz XPCS experiments of protein dynamics</i>	C. Gutt (U Siegen)
18:50	10:50	02:50	<i>Discussion</i>	
19:00	11:00	03:00	Science Application– Stoch. dynamics, Disordered systems <i>Exploring the dynamics of disordered materials using CBFEL sources</i>	G. Monaco (U Trento)
19:20	11:20	03:20	<i>Discussion</i>	
19:30	11:30	03:30	End of day 2	

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Friday, 26 March 2021

15:00pm – 19:50pm CET (Hamburg, DE)

7:00am – 11:50am PDT (Sacramento, USA)

23:00pm – 03:50am JST (Tokyo, JP)

CET	PDT	JST		
15:00	07:00	23:00	Welcome	T. Tschentscher (EuXFEL)
			Session chair	R. Röhlsberger (U Jena)
15:05	07:05	23:05	Science Application – Quantum Optics <i>Generation of non-classical x-rays and potential applications by CBXFEL</i>	Kenji Tamasaku (Spring-8)
15:25	07:25	23:25	<i>Discussion</i>	
15:35	07:35	23:25	Science Application – Complex materials, quantum phases <i>Considerations for Spectroscopic Applications</i>	A.Q.R. Baron (Spring-8)
15:55	07:55	23:55	<i>Discussion</i>	
16:05	08:05	00:05	Break	
			Session chair	R. Schoenlein (SLAC)
16:35	08:35	00:35	Science Application – Biochemistry and Spectroscopy <i>Advanced X-ray Spectroscopic Studies of Biological Catalysis - New Opportunities with Cavity-Based XFELs</i>	S. DeBeer (MPI Mülheim)
16:55	08:55	00:35	<i>Discussion</i>	
17:05	09:05	01:05	Science Application – Biochemistry and Spectroscopy <i>Chemical and Biological Applications of Mössbauer spectroscopy at a Cavity-based X-ray FEL</i>	V. Schünemann (TU KL)
17:25	09:25	01:25	<i>Discussion</i>	
17:35	09:35	01:35	Break	
			Session chair	A. Madsen (EuXFEL)
17:45	09:45	01:45	Science Application – Imaging <i>Challenges of signal-starved XFEL science in the very low photon count rate limit</i>	S. Hruszkewycz (ANL)
18:05	10:05	02:05	<i>Discussion</i>	
18:15	10:15	02:15	Science Application – Imaging <i>Holographic X-ray Imaging: Pushing spatial and Temporal resolution</i>	T. Salditt (U Göttingen)
18:35	10:35	02:35	<i>Discussion</i>	
18:45	10:45	02:45	Extended Scientific Discussion (60 mins)	Hastings, Madsen, Röhlsberger, Schoenlein
19:45	11:45	03:45	Close out	T. Tschentscher (EuXFEL)
19:50	11:50	03:50	End of day 3	