



2023 Annual Conference General Agenda

Tuesday, May 16th
Location - Salon Indigo

	TIME	PRESENTER(S)	TOPIC
Breakfast & Registration	8:00 - 9:00		Conference Registration & Breakfast in <u>Ocean Lounge</u>
Opening Remarks	9:00 - 9:10	Lopez-Garriga, Ros, Snell, Fromme	Conference Welcome
Session I: Exciting Biology <u>Session Chairs:</u> Henrike Müller-Werkmeister & Tek Narsingh Malla	9:10 - 9:30	Juan Lopez-Garriga	Sulfhemeproteins Scenarios and Mysteries
	9:30 - 10:00	Emina Stojkovic	High-Resolution Crystal Structures of Transient Intermediates in the Phytochrome Photocycle
	10:00 - 10:30	Thomas Barends	Ultrafast Structural Changes in Myoglobin: Influence of Pump Laser Fluence
	Break 10:30 - 10:45		
	10:45 - 11:15	Rebecca Jernigan	Hiding COVID: How Understanding an Accessory Protein Can Advance Biology and Medicine
	11:15 - 11:45	Lainey Williamson	Using Serial Femtosecond Crystallography to Solve the Structures of Pesticidal Proteins from Natural Crystals
	11:45 - 12:05	Matthew Rodrigues	Ultrafast Structural Changes Direct the First Molecular Events of Vision
Lunch	12:05 - 1:30		Served at <u>Ocean Lounge</u> [BioXFEL Scholars ONLY] - Interview with Sarah Woodruff in the <u>Salon Del Mar</u>
Keynote Lecture	1:30 - 2:30	Tabbatha Dobbins	Learning the Language of Light: Key Points from My Journey from Physics Undergrad to Materials Science Grad to Physics Professor and University Leadership
Session II: Dynamical Studies <u>Session Chairs:</u> Marius Schmidt & Rebecca Jernigan	Break 2:30 - 2:45		
	2:45 - 3:15	Lois Pollack	Time-Resolved Solution Scattering Monitors Chemically Triggered Biomolecular Reactions at LCLS
	3:15 - 3:45	Michael Thompson	Studying Dynamic Enzymes with Temperature-Jump Crystallography
	3:45 - 4:15	Jan Kerns	Combined X-ray Studies on Metalloenzymes at Room Temperature - Insights into Photosystem II and Other Systems
	4:15 - 4:45	Michel Steinmetz	Development and Use of Anti-tubulin Compounds for Time-Resolved Serial Crystallography at Synchrotrons and XFELs
	4:45 - 5:05	Kara Zelinski	A New Approach to Mix-and-Inject Serial Synchrotron Crystallography Resolves the Function of DJ-1
Poster Blitz	5:05 - 5:20	Conference Attendees	TBD
Poster Session	5:30 - 7:00	Conference Attendees	In <u>Salon Atlantiko</u> with appetizers provided



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Breakfast	8:00 - 9:00	Served at <u>Ocean Lounge</u>	
Session III: Sample Delivery	9:00 - 9:30	Alexandra Ros	Overcoming Sample Amount Limitations in Static and Dynamic Serial Crystallography with XFELs
	9:30 - 10:00	Hao Hu	Serial Femtosecond/Millisecond Crystallography (SFX/SMX) Sample Delivery with LCP Injectors
	10:00 - 10:30	Meghan Shelby	Fixed Target Tools to Address Sample Environment and Delivery Hurdles in Room Temperature Serial Crystallography
	Session Chairs:		
	Richard Kirian & Diandra Doppler		
	Break 10:30 - 10:50		
	10:50 - 11:20	Mark Hunter	Advancing Sample Delivery for LCLS Experiments
11:20 - 11:40	Roberto Alvarez	Nano-Drop Fluctuation X-ray Scattering	
11:40 - 12:00	Christina Schmidt	Sample Characterization and Laboratory Support for Time-Resolved Studies of Biomolecules at the European XFEL	
Lunch	12:00 - 1:30	Served at <u>Ocean Lounge</u> Recruitment Luncheon Event from 12:30 - 1:30 in <u>Salon Del Mar</u>	
Session IV: Facility and Instrumentation	1:30 - 2:00	Matthias Kling	Bioscience Opportunities with LCLS-II and LCLS-II-HE
	2:00 - 2:30	Shibom Basu	ID29: A Time-Resolved Serial Crystallography Beamline Offers New Opportunities at EMBL-ESRF
	2:30 - 3:00	Robert Kaindl	CXFEL Labs - New Horizons for Ultrafast X-ray Science
	Break 3:00 - 3:20		
	3:20 - 3:50	Darya Marchany-Rivera	Anaerobic Crystallography, In situ UV-Vis Spectroscopy and Serial Crystallography of Proteins
3:50 - 4:20	Raphael de Wijn	Capabilities and Developments at the SPB/SFX Scientific Instrument at the European XFEL	
4:20 - 4:50	Florian Dworkowski	Closing the Gap - Integrated Time-Resolved Crystallography at the SwissFEL and Swiss Light Source	
BioXFEL Dinner	6:00	Conference Attendees	Annual Conference Dinner at <u>Marena Pool</u>



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	TIME	PRESENTER(S)	TOPIC
Breakfast	8:00 - 9:00	Served at <u>Ocean Lounge</u>	
Session V: Complementary, Computational, and Enabling Approaches	9:00-9:30	Roberto Alonso Mori	X-ray Spectroscopy at LCLS: Elucidating the Electronic and Structural Dynamics of Metalloproteins
	9:30-10:00	Tek Narsingh Malla	Heterogeneity in the Mycobacterium Tuberculosis β -Lactamase Inhibition by Sulbactam
	10:00-10:30	Chenghua Shao	Supporting Deposition of XFEL/SX Structures at the Protein Data Bank
Break 10:30 - 10:50			
<u>Session Chairs:</u> Edward Snell & Nataniel Medina Berrios	10:50 - 11:10	Henrike Müller- Werkmeister	Multiscale Femtosecond Spectroscopy as Complementary Tool for Time-Resolved Serial Crystallography
	11:10 - 11:30	Mitchell Miller	Testing Deep Learning-Based Predictions of Electron Density Maps from Input Patterson Maps
	11:30 - 12:00	Sabine Botha	The Intricacies of SFX Data
Closing Remarks	12:00 - 12:10	Lopez-Garriga, Ros, Fromme, and Snell	Closing Session
Lunch	12:10 - 1:00	Served at <u>Ocean Lounge</u>	