

AGENDA

MONDAY, JANUARY 9, 2017

- 9:00 AM - 6:00 PM **ARRIVAL AND HOTEL CHECK-IN** [CLICK HERE FOR PROPERTY MAP](#)
MAIN LOBBY
- 8:00 AM - 5:00 PM **WORKSHOP AND CONFERENCE REGISTRATION** [CLICK HERE FOR MEETING SPACE MAP](#)
TURIN/TREVI 3F PALACE TOWER
- 9:00 AM - 5:00 PM **SINGLE PARTICLE WORKSHOP** [CLICK FOR AGENDA](#)
TURIN/TREVI 3F PALACE TOWER
- 6:00 PM - 8:00 PM **POSTER SESSION SETUP** [CLICK HERE FOR POSTER LIST & ABSTRACTS](#)
ROMAN II
- 8:00 PM - 10:00 PM **ABYS (ASSOCIATION OF BIOXFEL YOUNG SCIENTISTS MEETING**
LOCATION TBD)

4TH BIOXFEL INTERNATIONAL CONFERENCE [CLICK HERE FOR SPEAKER ABSTRACTS](#)

TUESDAY, JANUARY 10, 2017

- 8:35 AM – 8:45 AM **CONFERENCE WELCOME - ROMAN I**
Conference Co-Chairs: Petra Fromme (ASU) and Lois Pollack (Cornell)
- 8:45 AM – 9:45 AM **NEW XFEL SOURCES AND FACILITIES PART I - ROMAN I**
Session Chairs: Petra Fromme (ASU) and Max Wiedorn (CFEL)
- 8:45 AM – 9:05 AM Bill Pedrini (SwissFEL)
The Hard X-ray Beamline at the Swiss Free Electron Laser
- 9:05 AM – 9:15 AM Discussion
- 9:15 AM – 9:35 AM William Graves (ASU)
Compact XFEL Lightsources
- 9:35 AM – 9:45 AM Discussion
- 9:45 AM – 10:15 AM **COFFEE BREAK - FOYER**
- 10:15 AM – 12:15 AM **STRUCTURAL DISCOVERIES - ROMAN I**
Session Chairs: Petra Fromme (ASU) and Max Wiedorn (CFEL)
- 10:15 AM – 10:35 AM Meng Liang (SLAC)
SFX of Amyloid Crystalline Fibers
- 10:35 AM – 10:45 AM Discussion
- 10:45 AM – 11:05 AM Jessica Thomaston (UCSF)
XFEL Structures of the Influenza M2 Proton Channel at 1.4Å: Room Temperature
Water Networks and Insights into Proton Conduction
- 11:05 AM – 11:15 AM Discussion

11:15 AM – 11:35 AM	Wei Liu (ASU) Structure-Based Drug Design Platform for GPCRs in LCP
11:35 AM – 11:45 AM	Discussion
11:45 AM – 12:05 PM	Thomas Barends (MPI-Heidelberg) Observing Protein Dynamics with (sub) Picosecond Time-Resolution Serial Femtosecond Crystallography
12:05 PM – 12:15 PM	Discussion
12:15 PM – 1:45 PM	LUNCH GENERAL GROUP - ROMAN III
12:15 PM – 1:15 PM	LUNCH PRESENTATION ON BIOXFEL OPPORTUNITIES FOR UNIVERSITY OF PUERTO RICO STUDENTS ONLY - ROMAN I
1:15 PM – 1:45 PM	ASSESSMENT MEETING FOR NEW BIOXFEL STUDENTS ONLY - GENOA
1:45 PM – 3:00 PM	DORIS WATSON (UNLV) PROFESSIONAL DEVELOPMENT SEMINAR FOR ALL GRADUATE STUDENTS AND POSTDOCS ROMAN I Chair: Russell Fung (UWM)
3:00 PM – 5:20 PM	EMERGING CRYSTALLOGRAPHIC TECHNIQUES - ROMAN I Session Chair: Arwen Pearson (U of Hamburg) and Ganesh Subramanian (ASU)
3:00 pm – 3:20 pm	Nadia Zatsepin (ASU) Serial Femtosecond X-ray Crystallography of Carbon Monoxide-Bound Cytochrome c Oxidase
3:20 pm – 3:30 pm	Discussion
3:30 pm – 3:50 pm	Oleksandr Yefanov (DESY) 3D Merging: Getting More from Protein Crystallography
3:50 pm – 4:00 pm	Discussion
4:00 PM – 4:20 PM	COFFEE BREAK—FOYER
4:20 pm – 4:40 pm	Joe Chen (ASU) Shape Transform Phasing
4:40 pm – 4:50 pm	Discussion
4:50 pm – 5:10pm	Michael Thompson (UCSF) Infrared Laser-Induced Temperature-Jump: A General Perturbation Method for Studying Protein Dynamics with Time-Resolved X-ray Scattering and Diffraction
5:10 pm – 5:20 pm	Discussion
5:20 PM	2017 BIOXFEL POSTDOCTORAL AWARD ANNOUNCEMENT George Phillips
5:20 PM – 5:45 PM	POSTER BLITZ - ROMAN I Chair: Mitch Miller (Rice U)
5:45 PM	DINNER ON YOUR OWN

7:30 PM – 8:00 PM **NADIA SINGS! - ROMAN IV**
THE BIOXFEL JAZZ TRIO

8:00 PM - 10:00 PM **POSTER SESSION - ROMAN II**
8:00 PM - 9:00 PM EVEN POSTERS
9:00 PM - 10:00 PM ODD POSTERS
[CLICK FOR ABSTRACTS](#)

WEDNESDAY, JANUARY 11TH, 2017

8:45 AM – 10:45 AM **SAMPLE DELIVERY - ROMAN I**
Session Chairs: Allen Orville (Diamond) and Jose Olmos (Rice)

8:45 AM – 9:05 AM Chelsie Conrad (NIH)
Reduction of Sample Consumption for Serial Crystallography by Viscous Sample
Delivery

9:05 AM – 9:15 AM Discussion

9:15 AM – 9:35 AM Alexandra Ros (ASU)
Microfluidic Tools for Serial Crystallography

9:35 AM – 9:45 AM Discussion

9:45 AM – 10:05 AM Athina Zouni (FU-Berlin)
Insights into the Native-like Photosystem II Structure Using FS X-ray Free Electron
Laser Diffraction

10:05 AM – 10:15 AM Discussion

10:15 AM – 10:35 AM George Calvey (Cornell)
Mixing Injector for Time-resolved Studies of Chemically-induced Structural Changes at
X-ray Free Electron Lasers

10:35 AM – 10:45 AM Discussion

10:45 AM – 11:15 AM **COFFEE BREAK - FOYER**

11:15 AM – 12:15 PM **NEW XFEL SOURCES AND FACILITIES PART II - ROMAN I**
Session Chairs: Allen Orville (Diamond) and Jose Olmos (Rice)

11:15 PM – 11:35 AM Robert Schoenlein (LCLS-II)
Recent Developments at LCLS and Science Opportunities and Plans for LCLS-II and
LCLS-II-HE

11:35 AM – 11:45 AM Discussion

11:45 AM – 12:05 PM Katerina Dörner (European XFEL)
Sample Delivery Methods at the European XFEL & Facility Update

12:05 PM – 12:15 PM Discussion

12:15 PM – 1:15 PM **LUNCH GENERAL GROUP - ROMAN III**

12:15 PM – 1:15 PM **LUNCH ASSESSMENT MEETING FOR UPR STUDENTS ONLY - GENOA**

- 1:15 PM – 2:00 PM** **KEYNOTE SPEAKER: RAJINI RAO (JOHNS HOPKINS) - ROMAN I**
Session Chair: Edward Snell (HWI)
- 2:00 PM – 5:10 PM** **NON-CRYSTALLINE METHODS - ROMAN I**
Session Chairs: Chelsie Conrad (NIH) and David Bushnell (Stanford)
- 2:00 PM – 2:20 PM Taisa Gorkhover (SLAC)
Overcoming the Phase Problem with In-flight X-ray Fourier Holography
- 2:20 PM – 2:30 PM Discussion
- 2:30 PM – 2:50 PM Wah Chiu (BCM)
Atomic Resolution Cryo-EM of Single Particles
- 2:50 PM – 3:00 PM Discussion
- 3:00 PM – 3:30 PM** **COFFEE BREAK - FOYER**
- 3:30 PM – 3:50 PM Tom Grant (UB)
The Rapid Determination of Electron Density Maps Directly from Solution
Scattering Data
- 3:50 PM – 4:00 PM Discussion
- 4:00 PM – 4:20 PM Chuck Yoon (LCLS)
Single Particle Classification at LCLS
- 4:20 PM – 4:30 PM Discussion
- 4:30 PM – 4:45 PM Christopher Kupitz (UWM)
Mix and Inject: a β laC Story
- 4:45 PM – 4:50 PM Discussion
- 4:50 PM – 5:05 PM Jason Stagno (NCI)
Structures of Riboswitch RNA Reaction States by Mix-and-Inject XFEL
Serial Crystallography
- 5:05 PM – 5:10 PM Discussion
- 6:30 PM – 8:30 PM** **DINNER RECEPTION AT THE WHEELHOUSE [CLICK HERE FOR WALKING DIRECTIONS](#)**
POSTER AWARD ANNOUNCEMENT

THURSDAY, JANUARY 12TH, 2017

- 8:00 AM – 8:45 AM** **POSTER SESSION CLEAN UP - ROMAN II**
**If you do not remove your poster you risk it being thrown away.*
- 8:45 AM – 11:45 PM** **TIME-RESOLVED STUDIES - ROMAN I**
Session Chair: Marius Schmidt (UWM) and Michael Thompson (UCSF)
- 8:45 AM – 9:05 AM Arwen Pearson (U of Hamburg)
Enabling the Time-resolved Experiment: Developing Generally Applicable
Tools for Reaction Initiation
- 9:05 AM – 9:15 AM Discussion

9:15 AM – 9:35 AM	Nora Berrah (U of Connecticut) Time-resolved Fullerene Ionization Dynamics Induced by Intense LCLS X-ray Pulses
9:35 AM – 9:45 AM	Discussion
9:45 AM – 10:00 AM	Petra Edlund (Gothenburg U) The Dark Form Crystal Structure of a Photoactive Bacterial Phytochrome Determined by Serial Femtosecond Crystallography
10:00 AM – 10:05 PM	Discussion
10:05 AM – 10:20 AM	Hasan DeMirci (Stanford PULSE Institute) Structure-Based Antibiotic Development Driven by Ambient-Temperature Serial Crystallography of Small and Large Ribosomal Subunits at High Resolution
10:20 AM – 10:25 AM	Discussion
10:25 AM – 10:45 AM	COFFEE BREAK - FOYER
10:45 AM—11:05 AM	Eriko Nango (SACLA) Capturing Bacteriorhodopsin Structures in Action: Thirteen Snapshots by Time-resolved Serial Femtosecond Crystallography
11:05 AM—11:15 AM	Discussion
11:15 AM—11:35 AM	Max Wiedorn (CFEL) Time-Resolved Serial Crystallography at FELs and 3rd Generation Synchrotron Sources
11:35 AM—11:45 AM	Discussion
11:50 AM – 12:00 PM	GROUP PHOTO
12:00 PM – 1:00 PM	LUNCH GENERAL GROUP - ROMAN III
12:00 PM – 1:00 PM	LUNCH STUDENT MEETING WITH EXTERNAL ADVISORS - GENOA
1:00 PM—4:00 PM	BIOXFEL STC MEETING—FOR CENTER MEMBERS ONLY ROMAN I
1:00 PM—1:30 PM	Introduction and Update on Grant Renewal Process John Spence and Eaton Lattman
1:30 PM—1:40 PM	UPCOMING EDUCATION EVENTS BILL BAUER
1:40 PM—2:10 PM	Summary of European XFEL and Proposal Process Marc Messerschmidt
2:10 PM—4:00 PM	Future Beamtime Applications & Collaborations John Spence