

PETRA IV Coherence Workshop

(June 26 – June 28, 2017, FLASH SemRoom, Bldg. 28c)

Tentative schedule

Monday, June 26, 2017

12:30 Registration

Introduction

13:30 *Christian Schroer (DESY Photon Science)*
Science at PETRA III + IV: Conditions and Opportunities

14:00 *Ilya Agapov (DESY Accelerators)*
Status of the PETRA IV Accelerator Studies

14:30 Discussion

15:00 Coffee break

Session 1: Coherence Keynote Talks

15:30 *Ian Robinson (Brookhaven National Laboratory, USA)*
Bragg Coherent Diffractive Imaging with Even More Coherence

16:00 *Bob Leheny (John Hopkins University, Baltimore MD, USA)*
Opportunities in Soft Matter with XPCS at PETRA IV

16:30 *Tim Salditt (University of Göttingen, Germany)*
Imaging of Cells and Tissues at Full Field and Full Coherence

17:00 *Bogdan Sepiol (Universität Wien, Austria)*
New perspectives for correlation spectroscopy at large wave-vector transfers

17:30 – Discussion

19:00 – Dinner at DESY Bistro

Tuesday, June 27, 2017

Session 2: Coherent Imaging

- 9:00 *Olivier Thomas (Marseille University, France)*
Probing elementary mechanisms of plastic deformation with coherent diffraction imaging: from intermittent observation of single defects to real time dynamics?
- 9:30 *Yukio Takahashi (Osaka University, Japan)*
High-Resolution and High-Sensitivity X-ray Ptychography at SPring-8: Recent Progress and Future Prospects.
- 10:00 *Martin Holt (Advanced Photon Source, Argonne National Laboratory, USA)*
Coherent diffraction imaging using nanoscale focusing optics

10:30 Coffee break

Session 3: XPCS

- 11:00 *Giulio Monaco (University of Trento, Italy)*
XPCS experiments on liquids and glasses
- 11:30 *Felix Lehmkuhler (DESY)*
Dynamical and spatial heterogeneities in soft matter systems
- 12:00 *Alec Sandy (Argonne National Laboratory, USA)*
Prospects for XPCS at 4th Generation Storage Ring X-Ray Sources

12:30 Discussion

13:00 Lunch

Session 4: Coherent Imaging, beamlines

- 14:30 *Ross Harder (Advanced Photon Source, Argonne National Laboratory, USA)*
A beamline for extremely high resolution coherent imaging of atomistic structures.
- 15:00 *Ana Diaz (Swiss Light Source, Paul Scherrer Institute, Switzerland)*
X-ray ptychography: state of the art and bright perspectives for the future
- 15:30 *Tobias Schulli (European Synchrotron Radiation Facility, France)*
Coherent Diffraction imaging techniques on DLSR: beamlines and experiments meet scientific dreams

16:00 – Discussion/Coffee break

Session 5: XPCS, beamlines

16:30 *Yuriy Chuskin (ESRF, France)*

A new beamline for coherence based structural & dynamics studies – ESRF project

17:00 *Michael Sprung (DESY)*

XPCS@P10: Current Status & Future Needs

17:30 *Andrei Fluerasu (Brookhaven National Laboratory, USA)*

The Coherent Hard X-ray beamline at NSLS-II: status and early science

18:00 Discussion/Poster session

19:00 Dinner (Barbecue)

Wednesday, June 28, 2017

Session 6: XCCA, Chair:

9:00 *Peter Wochner (Max Planck Institute, Stuttgart, Germany)*

Opportunities for studies of order/disorder transitions with XCCA at Petra IV

9:30 *Silvain Ravy (SOLEIL, France)*

Can we learn something from speckle statistics?.

10:00 *Ruslan Kurta (European XFEL, Germany)*

Finding order in disorder with focused coherent x-ray beams

10:30 Coffee break

Workshop summary, Chair:

11:00 – Discussions and conclusions

12:00 – Closing remarks, lunch and departure