

PETRA IV Coherence Workshop

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

Tentative schedule

Monday, June 26, 2017

12:30 Registration

Introduction

Chair: G.Grübel

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

Chair: I. Vartanians

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

Chair: I. Robinson

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

Group Photo

10:30 Coffee break

Session 3: XPCS

Chair: B. Leheney

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

Chair: T. Salditt

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

Chair: B. Sepiol

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: O. Thomas

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 (CNRS, Université Paris-Saclay, 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

Chairs: G. Grübel & I. Vartaniants

11:00 – Discussions and conclusions

12:00 – Closing remarks, lunch and departure