

## Three-way Meeting and X-ray Optics Workshop - PROGRAMME

<b>Monday 30 January 2012</b>			
<b>Optics Workshop – ESRF Auditorium</b>			
08:30	Registration opens (ESRF entrance hall)		
<b>Session 1 Chair: Yuri Shvyd'ko (APS)</b>			
09:00	Welcome address Welcome by Chairperson	Jean Susini Head of the ISDD/ESRF Jürgen Härtwig, ESRF	5' 5'
09:10	Optics development at the APS	Lahsen Assoufid APS	15 + 5'
09:30	Overview of optics at Spring-8	Shunji Goto SPring-8	15 + 5'
09:50	PETRA III general optics and overview	Horst Schulte-Schrepping Petra III	15 + 5'
10:10	Optics development at the ESRF	Jürgen Härtwig ESRF	15 + 5'
10:30	Coffee break on the Mezzanine		
<b>Session 2 Chair: John Morse (ESRF)</b>			
11:00	Exploring novel inelastic x-ray scattering optics from 20-meV to sub-meV resolution at medium photon energies	Xianrong Huang APS	15 + 5'
11:20	Berry Phase to dynamical theory -Theory to practical photon handling	Kei Sawada SPring-8	15 + 5'
11:40	The XNAP pixel detector collaborative project	Pablo Fajardo ESRF	15 + 5'
12:00	News from the mirrors and metrology laboratory	Ray Barrett ESRF	15 + 5'
12:20	Break for lunch		
<b>Session 3 Chair: Ray Barrett (ESRF)</b>			
14:00	PETRA III special optics	Jan Horbach Petra III	15 + 5'
14:20	Nested K-B mirrors - Fabrication and performance	Bing Shi APS	15 + 5'
14:40	Strategy for positioning mechanics for long mirrors at ESRF	Trevor Mairs ESRF	15 + 5'
15:00	Nano-beam activities	Takahisa Koyama SPring-8	15 + 5'
15:20	Coffee break on the Mezzanine		
<b>Session 4 Chair: Shunji Goto (SPring-8)</b>			
15:40	Ila diamond: crystal quality and non linear optics	Kenji Tamasaku SPring-8	15 + 5'
16:00	Development of diamond crystal X-ray optics	Yuri Shvyd'ko APS	15 + 5'
16:20	XBPM based on diamond	John Morse ESRF	15 + 5'
16:40	Detectors at the Advanced Photon Source: present efforts, and future directions	Chris Jacobsen APS	15 + 5'
19:30	<b>Optics Workshop Dinner at the Common Restaurant</b>		

## Tuesday 31 January 2012 – ESRF Auditorium

### Session 5 Chair: Horst Schulte Schrepping (PETRA III)

09:00	News from the ESRF Multilayer Facility	Christian Morawe ESRF	15 + 5'
09:20	Nanopositioning system design for X-ray nano-focusing with K-B mirrors and MLLs at the APS	Deming Shu APS	15 + 5'
09:40	The IXS beamline at PETRA III	Hasan Yavas Petra III	15 + 5'
10:00	Beam monitors at SACLA: Technical feedback to photon monitoring and diagnostics for storage ring	Kensuke Tono SPring-8	15 + 5'

10:20 Coffee break on the Mezzanine

### Session 6 Chair: Lahsen Assoufid (APS)

10:50	Status of the refractive optics development at the ESRF	Anatoly Snigirev ESRF	15 + 5'
11:10	Thermal stability considerations for ESRF Upgrade optics	Robert Baker ESRF	15 + 5'
11:30	Optics and gratings for the XUV beamline P04 at PETRA III	Jens Viefhaus Petra III	15 + 5'
11:50	Converter-screen and viewer for beam diagnostic	Thierry Martin ESRF	15 + 5'

12:10 Break for lunch

### Session 7 Chair: Kenji Tamasaku (SPring-8)

14:00	ESRF Multilayer white beam test bench	Kathrin Friedrich ESRF	15 + 5'
14:20	Optics for the new IXS beamline	Alfred Baron SPring-8	15 + 5'
14:40	Optics movers and actuation, in the context of the ESRF upgrade stability	Yves Dabin ESRF	15 + 5'
15:00	Detector Developments at DESY for frontier Photon Science	Heinz Graafsma Petra III	15 + 5'

15:20 Coffee break on the Mezzanine

### Session 8 Chair: Jürgen Härtwig

15:50	Wave-optical simulations of focusing multilayer mirrors	Markus Osterhoff ESRF/University Göttingen	15 + 5'
16:10	Final discussion, conclusions	Chair: Jürgen Härtwig	20'

after the session **Visit to Optics Labs and related beamlines : details will be fixed during the session**

**19:30 Three Way Meeting Welcome Party at the Common Restaurant**

### Wednesday 1 February 2012 – Three-way Meeting

#### Parallel session A – Accelerator R&D – EMBL seminar room

08:30	Registration opens (ESRF Entrance Hall)		
09:00	Welcome by Chairperson	Pantaleo Raimondi Director Accelerator and Source Division ESRF	5'
09:05	Short X-ray pulse generation with a vertical kicker	Dr. C. Mitsuda JASRI/Spring-8	20 + 5'
09:30	Crab cavities (production of short pulses) / SPX deflecting cavity	Ali Nassiri APS	20 + 5'
09:55	Radiation damage of tunnel components	Michael Bieler Petra-III	20 + 5'
10:20	Coffee break		
10:40	Solid State RF amplifiers and HOM free cavities	Jörn Jacob ESRF	20 + 5'
11:05	Superconducting undulators	Louis Emery APS	20 + 5'
11:30	Local lattice modification and lower emittance optics for higher brilliance	Dr. K. Soutome, JASRI/Spring-8	20 + 5'
11:55	Synchronisation of gap vs. mono (Petra-III)	Andreas Schoeps Petra-III	20 + 5'
12:20	Break for lunch		

### Wednesday 1 February 2012 – Three-way Meeting

#### Parallel session B – Data management and online data analysis – ESRF Auditorium

09:00	Welcome by Chairperson	John MacLean, Associate Division Director, Engineering and Support Division (APS)	5'
09:05	Data management: PaN-Data (and CRISP) initiative	Rudolf Dimper ESRF	20 + 5'
09:30	New data-intensive experiments and scientific opportunities for X-ray micro-tomography	Francesco De Carlo APS	20 + 5'
09:55	High data rate initiative in the Helmholtz association (HDRI)	Rainer Gehrke Petra-III	20 + 5'
10:20	Coffee break on the Mezzanine		
10:40	Next generation data exploration: Intelligence in data analysis, visualization and mining	Stefan Vogt APS	20 + 5'
11:05	Data analysis workbench (DAWB)	Olof Svensson ESRF	20 + 5'
11:30	Experiment workflow pipelines at APS: message queuing and HDF5	Claude Saunders APS	20 + 5'
11:55	icat metadata catalogue (from CRISP project)	D. Porte and A. Goetz ESRF	20 + 5'
12:20	Break for lunch		

## Wednesday 1 February 2012 – Three-way Meeting

### Plenary session – DG Reports and facility upgrades and future plans – ESRF Auditorium

14:00	Opening address	Francesco Sette Director General (ESRF)	5'
14:05	Welcome by Chairperson	Bill Stirling (CEA/ESRF)	5'
14:10	DG Report	Brian Stephenson, Associate Laboratory Director for Photon Sciences (APS)	25 + 5'
14:40	DG Report	Helmut Dosch, Chairman of the Board of Directors, DESY (Petra-III)	25 + 5'
15:10	DG Report	Francesco Sette Director General (ESRF)	25 + 5'
15:40	DG Report: status and future plans	Tetsuya Ishikawa, Director of RIKEN Harima Institute (SPring-8)	30 + 5'
16:15	Coffee break on the Mezzanine		
16:35	Welcome by Chairperson	Geoff Pile, Associate Division Director (APS)	5'
16:40	Facility upgrades and future plans	Edgar Weckert, Director, Photon Science (Petra-III)	25 + 5'
17:10	Facility upgrades and future plans	Harald Reichert, Director of Research (ESRF)	25 + 5'
17:40	APS beamline upgrade and APS accelerator upgrade	B. Stephenson and Louis Emery (APS)	30 + 5'
18:15	SACLA, status and perspectives	Hitoshi Tanaka, Director of the XFEL R&D Division, RIKEN SPring-8 Center	25 + 5'
18:45	End		
19:10	Bus collection outside Guest House		
20:00	<b>Gala Dinner Musée de Grenoble and Restaurant 'Le 5'</b>		

## Thursday 2 February 2012 – Three-way Meeting

<b>Parallel session C – Automation and control for nanobeams –ESRF Auditorium</b>			
08:30	Welcome by Chairperson	Edgar Weckert, Petra-III Director in charge of Photon Science	5'
08:35	Nanobeam control	Gerald Falkenberg Petra-III	20 + 5'
09:00	Nanopositioning & control developments at APS	Curt Preissner APS	20 + 5'
09:25	Stable nanobeam handling by upgrading beamline optics and experimental stations	Dr. Haruhiko Ohashi JASRI/SPring-8	20 + 5'
09:50	Sample stage positioning for the nano- imaging branch of NINA	Francois Villar ESRF	20 + 5'
10:15	Coffee break on the Mezzanine		
10:40	Nanopositioning at beamline P11 at PETRA III	Alke Meents Petra-III	20 + 5'
11:05	Beamline automation at SPring-8 MX beamlines: robotics and remote control	Dr. Kazuya Hasegawa JASRI/SPring-8	20 + 5'
11:30	Ultimate automation for the MX beamlines	Christoph Mueller-Dieckmann ESRF	20 + 5'
11:55	Improving handling and impact of microprobes	Stefan Vogt APS	20 + 5'
12:20	Break for lunch		

## Thursday 2 February 2012 – Three-way Meeting

### Parallel session D – Collaboration and partnerships at the local level – ESRF room 500

08:55	Welcome by Chairperson	Masayo Suzuki, Research Coordination Division Director Spring-8	5'
09:00	PETRA III collaborations with industry and academia.	Hermann Franz Petra-III	20 + 5'
09:25	APS experiences with industrial partners, and collaborations world wide across facilities	George Srajer APS	20 + 5'
09:50	The GIANT Partnership and the Technology Platform - Grenoble	Bill Stirling ESRF	20 + 5'
10:15	Photo followed by Coffee break on the Mezzanine		
10:40	Strategic promotion of Academia- Industry project	Dr. Akihiko Fujiwara JASRI/SPring-8	20 + 5'
11:05	In-situ, complex environments (nuclear, high temp, radiation)	Jon Almer APS	20 + 5'
11:30	Developing partnerships for science and industry (PSB, Soft Condensed Matter; Palaeontology)	Sean McSweeney ESRF	20 + 5'
11:55	International collaboration at PETRA III	Wolfgang Drube Petra-III	20 + 5'
12:20	Break for lunch		
14:00	Visit of site – Meeting point on the Mezzanine		
16:00	Coffee break on the Mezzanine		
<b>Plenary session – Wrap up</b>			
16:30	Opening remarks by chairperson	Francesco Sette, ESRF	5'
16:35	Optics Workshop report	Jurgen Härtwig, ESRF	15'
16:50	Parallel Sessions report	Pantaleo Raimondi, ESRF	10'
17:00	Parallel Sessions report	John MacLean, APS	10'
17:10	Parallel Sessions report	Edgar Weckert, Petra-III	10'
17:20	Parallel Sessions report	Masayo Suzuki, SPring-8	10'
17:30	Discussion: Are there collaboration opportunities?	Jean Susini, ESRF	15'
17:45	Closing remarks	Francesco Sette and DG of next Three-way Meeting host	15'
18:00	End		

### Organisers

#### Optics Workshop

Organiser: Jurgen Härtwig ([haertwig@esrf.fr](mailto:haertwig@esrf.fr))

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#### Three-way Meeting

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APS: Stefan Vogt

SPring-8: Masayo Suzuki and Masaki Takata

PETRA III: Hermann Franz