Summary of the
ICFA Advanced Beam Dynamics Workshop
on
Future Light Sources

Michaela Marx, DESY

JACoW Team Meeting, Trieste, March 2007

The 37th ICFA Advanced Beam Dynamics Workshop on Future Light Sources,
May 15 – 19, 2006, Hamburg, Germany

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DESY
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Overview

► **ICFA and ICFA sub panel on Future Light Sources**

► **General workshop information**

► **Workshop program**

► **SPMS setup**

► **Workshop proceedings**

► **Workshop specials**

► **Software/Hardware used in the proceedings office**

► **Acknowledgement**

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What is ICFA?

International Committee for Future Accelerators.

Created 1976 to facilitate international collaboration in the construction and use of accelerators for high energy physics, see http://www.fnal.gov/directorate/icfa/

6 ICFA Panels

ICFA Instrumentation Innovation and Development Panel	**ICFA Beam Dynamics Panel** **http://www-bd.fnal.gov/icfabd/**
ICFA Panel on Advanced and Novel Accelerators	**ICFA Standing Committee on Interregional Connectivity**
International Linear Collider Steering Committee	**International High Energy Physics Computing Coordination Committee**

ICFA Beam Dynamics Panel → 4 Beam Dynamics Working Groups (or sub panels)

Future Light Sources	**High Luminosity e+e- Colliders**
High-Brightness Hadron Beams	**Remote Experiments in Accelerator Physics**

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ICFA sub panel on Future Light Sources

► The workshop series on future light sources is the flagship event of the ICFA sub panel on Future Light Sources

► Workshops are held every three years

► The mission of the Future Light Sources (FLS) sub panel is to promote R&D on accelerator physics and technology for the development of future light sources

► Chair: K.-J. Kim (ANL-APS, Argonne, USA)

► For further information see:

www.aps.anl.gov/asd/ICFA/ICFA-FLS.html

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General Workshop Information (1)

Chairman: Jörg Rossbach (DESY), Kwang-Je Kim (ANL)
Scientific Program Chair: Winni Decking (DESY)
Workshop Secretary: Christel Oevermann (DESY)
Editing & SPMS setup: Michaela Marx (DESY)

- 148 Participants
- 16 Plenary Talks
- 12 Poster Presentations
- 110 Oral working group contributions (predominantly PowerPoint slides)
- 5 Working Groups:
  WG1 - Storage ring based synchroton radiation sources
  WG2 - Energy Recovery Linac based synchrotron radiation sources
  WG3 - Free Electron Lasers
  WG4 - Low emittance electron guns
  WG5 - Beam diagnostics and stability

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General Workshop Information (2)

Important Dates

October 2005: 1st Announcement by E-mail

Early Registration: From February 2006

Abstract Submission: From February 2006

Early Registration Deadline: 31 March 2006

Late Registration: From April 1, 2006

Deadline for Online-Registration: 10 May 2006

Paper Submission: From May 1, 2006

Contribution Submission Deadline: 1 July 2006

► First ICFA Workshop which joined JACoW to publish via the JACoW web site

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FLS 2006 Workshop Program — 16.05.2006

	Sunday 14 May 2006	Monday 15 May 2006	Tuesday 16 May 2006	Wednesday 17 May 2006	Thursday 18 May 2006	Friday 19 May 2006
9:00			Trends in XUV Synchrotron Radiation Research S. Svensson – Uppsala U.	CW Superconducting RF for Future Linac-Based Light Sources J. Knobloch - BESSY	Working Groups	WG summaries
9:30			Inverse Compton Scattering: A Small Revolution in X-ray Sources and Applications D. Moncton- MIT	Synchronization and Timing Challenges for Future Light Sources G. Hirst - CCLRC	Working Groups	WG summaries
10:00		Laboratory visit		Short Radiation Pulses in Storage Rings S. Khan – Uni Hambug	Working Groups	WG summaries
10:30		Laboratory visit	Coffee Break	Coffee Break	Coffee Break	Coffee Break
11:00		Laboratory visit	Working Groups	Attosecond Pulses in XFELs E. Saldin – DESY	Working Groups	WG summaries
11:30		Laboratory visit	Working Groups	Seeding and Harmonic Generation in FELs L. Gianessi - ENEA	Working Groups	WG summaries
12:00						ICFA Statement Close Out
12:30		Lunch	Lunch	Lunch	Lunch	Lunch
13:00		Lunch	Lunch	Lunch	Lunch	Lunch
13:30			Poster Session		Poster Session	
14:00		Welcome	Working Groups	Transit to Excursion Starting Point – Jungfernstieg, Hamburg City-Centre	Working Groups	
14:30		First Experimental Experience at FLASH W. Wurth – Uni Hamburg	Working Groups		Working Groups	
15:00		Energy Recovery Linac Experimental Challenges D. Bilderback – Cornell U.	Working Groups		Working Groups	
15:30		Trends in X-ray Synchrotron Radiation Research J. Schneider - DESY	Working Groups	Excursion: Boat Trip on Lake Alster	Working Groups	
16:00		Coffee Break	Coffee Break		Coffee Break	
16:30		Design Considerations for Table-Top FELs F. Gruener - LMU	Working Groups		Working Groups	
17:00		Working Group Organisation	Working Groups		Working Groups	
17:30			Working Groups	S-Bahn and Walk to Banquet Location	Working Groups	
18:00	Reception – 18:00-20:00					
18:30				Banquet – 18:30-22:00		

Workshop Program

► Plenary Talks

► 5 Working Groups

► Poster Sessions

► Lab Tour

► Excursion + Banquet

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SPMS Setup (1)

SPMS (5.4) has been used for

- registration*
- payment affairs*
- abstract submission
- paper upload (and download)
- paper processing

► SPMS has been patched several times from 5.0 to 5.9 (at last)

► Local database was synchronized with the CERN repository continuously

► Full support from Matt
by E-mail communication
and Harald Falkenberg,
the Oracle database
expert at DESY

* new features

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SPMS Setup (1)

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adapting the new features to our workshop needs was time consuming: few documentation, lots of error messages, see next slide …

▶ SPMS has been patched several times from 5.0 to 5.9 (at last)

▶ Local database was synchronized with the CERN repository continuously

▶ Full support from Matt by E-mail communication and Harald Falkenberg, the Oracle database expert at DESY

* new features

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SPMS Setup (2)

Problems encountered during the adaptation of the SPMS:

► automatic E-mail confirmation after registration did not work

► week days on several web pages occurred in german instead of english

► missing oracle procedures:

• The requested URL /pls/fls2006_tst/search.results was not found on this server

• The requested URL /pls/fls2006_tst/prog_cmtte.list was not found on this server

• The requested URL /pls/fls2006/registration.stats was not found on this server

• The requested URL /pls/fls2006/registration.new_item3 was not found on this server

• The requested URL /pls/fls2006/profile.xls was not found on this server.

► missing currency symbol in outgoing messages - Euro symbol was replaced by a "?"

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Matt's comment:
"wow you are finding lots of bugs"…

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Matt's comment:
"wow you are finding lots of bugs"…

…most problems had been fixed by Matt and Harald Falkenberg (DESY) instantaneously and the SPMS worked properly ☺12
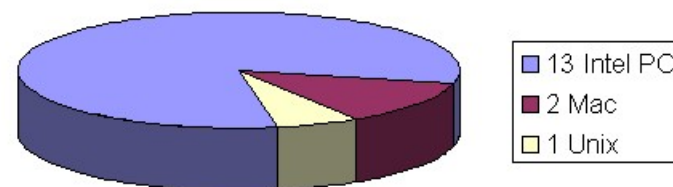
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SPMS Setup (3)

► All paper codes (Paper-IDs) have been assigned manually, because the deadline for submitting contributions was six weeks after the workshop

Flags **Auto Gen Program Code** and **Enable Automatic Poster ID Assignment** were set to "**No**", see
Overall Database Administration → System Parameters → Conference

► List of presentation/session codes. Necessary to build the paper codes later on:

	Presentation Option Code	Presentation Option Descr	Presentation Type Code
Delete	PLT	Plenary Talk	Oral
Delete	POS	Poster	Poster
Delete	WG1	Working Group 1	Oral
Delete	WG2	Working Group 2	Oral
Delete	WG3	Working Group 3	Oral
Delete	WG4	Working Group 4	Oral
Delete	WG5	Working Group 5	Oral
Delete	WG6	Working Group 6	Oral

FLS2006 Paper codes:

► for posters:
   POS01 … POS12
► for plenary talks:
   PLT01 … PLT12
► for working group contributions:
   WG101 … WG554

Workshop Proceedings

source file type distribution

► **110** Oral Working Group Contributions
  16 Papers (writing a paper was optional)

- 13 Intel PC
- 2 Mac
- 1 Unix

► <u>3 Editors:</u> Michael Abo-Bakr (BESSY), Volker Schaa (GSI), Michaela Marx (DESY)

Main work: Working group contributions (PowerPoint slides) have been converted to PDF files and uploaded to the database

► Preliminary proceedings have been presented on the workshop web page just after the workshop

► Final proceedings have been published on the JACoW web site in November 2006 with the assistance of Volker Schaa

► Thanks to Volker!!! His JACoW proceedings scripts are working great ☺

Workshop Specials

► Oral working group contributions (PowerPoint presentations) have been collected on USB-sticks.
After each session the contributions were transferred to the editors in the proceedings office.

► All PowerPoint presentations were converted to PDF files and uploaded to the workshop database

► New file type "Transparencies" has been defined by Matt to allow the upload of PowerPoint presentations to the database

Naming convention is: papercode_talk.pdf for PDF files or
papercode_talk.ppt for PowerPoint files or
papercode_talk.pps to open with the PowerPoint viewer

Trouble makers: Animations, videos, overlapping graphics ► time consuming to fix

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Software/Hardware used in the proceedings office

Software:

► Acrobat 7.0

► Distiller 7.0

► PitStop 7.0

► Microsoft Office XP (WORD 2002, PowerPoint 2002)

Hardware:

► 3 PCs + 1 Laptop (Volker's, for processing LaTeX papers)
► 1 color printer

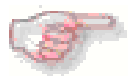**FLS 2006**

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Acknowledgement

Thanks to Matt, Volker, Michael Abo-Bakr and Harald Falkenberg (DESY)
for their outstanding support ☺

You'll find the workshop web page at **http://fls2006.desy.de**
and the proceedings at **http://www.jacow.org/**