

MEDSI02 WORKSHOP PROGRAM

Argonne National Laboratory, September 5-6, 2002
Building 401, Auditorium and room E1100/E1200

All Speakers Note: Time allocated for presentations includes time for discussion. Please make sure that your paper has been submitted in Word format to the Workshop secretary.

THURSDAY, SEPTEMBER 5

- 08:00 Registration
Coffee, tea, juice, pastries will be available just outside E1100/1200
08:30 Welcome, logistics – **R. Gerig, S. Sharma**, 15 minutes

Morning Session 1: Chair – S. Zelenika, Co-Chair – A. Gambitta

Novel Designs of Accelerator and Beamline Components

- 08:45 The Canadian Light Source: Status Report – **D. Lowe**
09:05 Progress Report on “DIAMOND”, The New Synchrotron Radiation Facility for the UK and Details of the Storage Ring Girder Vibration Analysis – **N. Hammond**
09:25 A Compact Back Face Cooled Slotted Infrared Mirror and Mechanism for the IR 13 Beamline at the SRS, CLRC Daresbury Laboratory – **J. Flaherty**
09:45 Storage Ring Injection Area Upgrade at the Advanced Photon Source (APS) – **L. Morrison**
10:10 An Optimized Design for the NSLS 53 MHz RF Cavities and the Ancillary Components – **P. Mortazavi**
10:30 **Coffee break**
11:00 Development of the Low Return Loss 340-Size Ceramic Window for the APS Linac – **S. Berg**
11:20 A Variable-Focus X-ray Compound Lens – **A. Khounsary**
11:40 Monolithic Two-Axis Flexure-Joined Mirror Support – **T. Noll**
12:00 **Lunch**

Afternoon Session 1: Chair – J.R. Chen, Co-Chair – T. Nakazato

Beam Stability: Vibration and Thermal Effects

- 13:30 Investigation of Passive Vibration Damping Methods for the Advanced Photon Source Storage Ring Girders – **C. Doose**
13:50 Measurement of Thermal Effects on the Advanced Photon Source Storage Ring Vacuum Chamber – **L. Emery**
14:10 Observation of Beam Orbit Fluctuation with Forced-Vibrating Magnets and Vacuum Chambers – **T. Nakazato**
14:30 Mechanical Stability Studies at Taiwan Light Source – **J.R. Chen**
14:50 Thermal Deformation of the Magnet Girder and its Solution at the SRRC Storage Ring – **D.J. Wang**
15:10 **Coffee break**

Afternoon Session 2: Chair – D. Shu, Co-Chair – S. Jordan

High Precision Positioning Mechanisms

- 15:40 The Mechanical Design of High Precision Positioning Instruments Used for X-ray Microscopy at the ESRF – **Y. Dabin**
- 16:00 Optimal Dynamic Performance for a High-Precision Stage System – **C. Preissner**
- 16:20 Progress of the High-Precision Positioning Mechanism Development at the Advanced Photon Source – **D. Shu**
- 16:40 Recent Advances in Nano-Precision Motion Technologies Address the Resolution-Speed Tradeoff – **S. Jordan**
- 17:00 **Adjourn**
- 18:30 **Cash Bar at the Argonne Guest House**
- 19:00 **Banquet at the Argonne Guest House**

FRIDAY, SEPTEMBER 6

08:00 Coffee, tea, juice, pastries will be available just outside E1100/1200

Morning Session 1: Chair – E. Traktenberg, Co-Chair – M. Erdmann

Insertion Devices and Vacuum Chambers

- 08:30 The Flexible Taper Transition for an In-Vacuum Undulator – **R. Reiser**
08:50 Installation Aspects of the Third Harmonic Cavity and Superconducting Wiggler at Elettra – **A. Gambitta**
09:15 First Prototype Undulator for the LCLS Project – Mechanical Design and Prototype Lessons – **E. Traktenberg**
09:40 Mechanical Design of NSLS Mini-Gap Undulator (MGU) – **D. Lynch**
10:00 **Coffee break**

Morning Session 2: Chair - L. Zhang, Co-chair – S. Sharma

High Heat Load Analysis and Design

- 10:30 ESRF Thermal Absorbers: Temperature, Stress and Material Criteria – **L. Zhang**
10:55 Thermomechanical Analysis of High-Heat-Load Components for the Canted-Undulator Front End – **Y. Jaski**
11:20 An Evaluation of Enhanced Cooling Techniques for High-Heat-Load Absorbers – **S. Sharma**
11:40 Enhanced Heat Transfer Utilizing Wire-Coil Inserts for High-Heat-Load Applications – **J. Collins**
12:00 **Lunch**
- 13:30 APS Tour
14:30 Picture

Afternoon Session: Moderated by (TBD)

- 14:45 Summary of Presentations/Seminar on Utility Systems – **R. Dortwegt**
15:15 Concluding Discussion
16:00 **Adjourn**

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