MEDSI02 WORKSHOP

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**

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

Morning Session 1: Chair – E. Trakhtenberg, 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. Trakhtenberg**
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**