

Tuesday 25 May

8h30	Coffee and handing out Workshop documents	
9h00	Welcome and Introduction	Y. Dabin
9h15	Opening address	F. Sette
	Keynote presentation	
9h30	Thermomechanical analysis in SR instrumentation	L. Zhang

10h00-10h15 Coffee break

Session 1 Accelerator components and front ends

Chair: S. Zelenika

11h00	NSLS II: A proposed facility	E. Haas
11h20	ESRF front-end evolution	J.-C. Biasci
11h40	A new bending magnet vacuum chamber for the first infra-red beamline at ELETTRA	A. Gambitta
12h00	Design and technology of the high heat-load photon shutters for the new front ends at APS	E. Trakhtenberg

12h20 Lunch

POSTER SESSION

Session 2 High heat load -components and novel designs

**Chair: S. Sharma
F. Comin**

15h00	Strength evaluation of beryllium window for SPring-8 front end	S. Takahashi
15h20	White beam stop for the inelastic x-ray scattering beamline at the Advanced Photon Source	B. Brajuskovic
15h40	Mechanical design of the pinhole imaging system at the APS storage ring	S. Sharma

16h00 Coffee break

16h30	Heat load analysis of 3 Tesla wigglers in the CANDLE storage ring	S Tunyan
16h50	Wire scanner system for undulator section of VUV FEL at DESY	N. Bargen
17h10	Tribology in extreme environment: state of the art and some solutions for solid lubrication in UHV	M. Belin

19h30 Workshop dinner

Tuesday 25 May

Keynote presentation

9h00 High precision positioning design for SR instruments D.-M. Shu

Session 3 High precision position mechanisms & vibration stability Chair: Y. Dabin

10h00 Hexapods at the ESRF: mechanical aspects, results Ph. Marion

- 10h50 Investigation of optimised notch shapes for flexural hinges S. Zelenika
11h10 Angular positioning in the nanoradian range M. Renier
11h30 Progress towards a revolute joint robot for the precision C. Preissner
positioning of material samples or an x-ray detector
11h50 Vibration study at the ESRF L. Zhang

POSTER SESSION

Session 4 Opto-mechanical devices Chair: M. Howells

- 14h30 Present status of SPring8 cryogenically cooled T. Mochizuki
monochromators
14h50 The new switching mirror unit and its mechanical T. Noll
principles

Session 5 Sample environment and automation Chair: D.-M Shu

- 15h20 Sample environment at the ESRF P. van den Linden
15h40 New devices for high precision diffractometers F. Cipriani
16h00 Automation: designing the beamline to make T. Mairs
software possible.

Closing Session - Synthesis and concluding remarks Chair: Y Dabin

17h00 -



Grenoble - France

PROGRAMME

medsi 2004
24 - 27 May 2004

Thursday 27 May

9h00 - 12h00

Guided tour of site and beamlines

Details to be posted later



Mechanical design of x-ray beam position monitors with individual actuators for spring-8 front ends

MEDSI-PROC-04-01

Hideki Aoyagi ¹, Sunao Takahashi ¹ and Hideo Kitamura ¹⁻²,

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Mechanical design of HERIX analyzer setup

MEDSI-PROC-04-02

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Advanced Photon Source, Argonne National Laboratory,
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White beam stop for the inelastic x-ray scattering beamline at Advanced Photon Source

MEDSI-PROC-04-03

Branislav Brajuskovic, Yifei Jaski, and Deming Shu Experimental Facilities Division,
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Annealed pyrolytic graphite filter for beamline 5.0

MEDSI-PROC-04-04

at the ALS D. Cambie, C.Cork, R. Duarte, C. Hopkins, A. Lim, A. Lobodovski, A. MacDowell, H. Padmore,
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Sample environment elevated temperature recent development at the ESRF

MEDSI-PROC-04-07

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Degradation of epoxy resin at NSLS X-Ring magnet

MEDSI-PROC-04-08

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Present status of Spring-8 cryogenically cooled monochromators

MEDSI-PROC-04-10

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Performance of the upgraded storage ring injection area at the advanced photon source (APS)*

MEDSI-PROC-04-11

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The new switching mirror unit and its mechanical principles

MEDSI-PROC-04-12

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Angular positioning in the nanoradian range

MEDSI-PROC-04-13

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Fast spinner for powder diffraction at the ESRF

MEDSI-PROC-04-14

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Flow cryostats for use in synchrotron facility

MEDSI-PROC-04-15

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Strength evaluation of Beryllium window for Spring-8 front end

MEDSI-PROC-04-16

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Characteristics of mechanically bent shaped mirror

MEDSI-PROC-04-19

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Absorber design for the candle storage ring

MEDSI-PROC-04-20

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Heat load analysis of three Tesla wiggler in CANDLE

MEDSI-PROC-04-21

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Miniature UHV split pair pulsed magnet for sample magnetisation

MEDSI-PROC-04-22

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Investigation of mechanical stability for SSRF GIRDER

MEDSI-PROC-04-24

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Investigation of optimised notch shapes for flexural hinges

MEDSI-PROC-04-25

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Development of structural damping for accelerators

MEDSI-PROC-04-28

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The status of the de-ionized cooling water system study and improvement at TLS

MEDSI-PROC-04-29

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An investigation of low beta triplet vibrational issues at CDF(FERMILAB)*

MEDSI-PROC-04-30

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Wire scanner system for undulator section of VUV FEL at DESY

MEDSI-PROC-04-31

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A new bending magnet vacuum chamber customized for the first infra-red beamline at ELETTRA

MEDSI-PROC-04-33

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ESRF front-end evolution

MEDSI-PROC-04-34

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Thermo-mechanical analysis for SR instrumentation

MEDSI-PROC-04-35

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Vibration studies at the ESRF

MEDSI-PROC-04-36

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Novel design of PEEMIII 5 axis sample manipulator

MEDSI-PROC-04-37

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ID09 design of channel cut and multilayer monochromator LN2 cooled

MEDSI-PROC-04-38

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Improvement of a four blade slit for spring8 x-ray beamline

MEDSI-PROC-04-40

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Vertical slits and photon shutters for the new PETRA III undulator beamlines

MEDSI-PROC-04-41

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Hexapods at the ESRF: mechanical aspects, results obtained

MEDSI-PROC-04-42

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Mechanical design for an x-ray diffraction microprobe at the Advanced Photon Source

MEDSI-PROC-04-43

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Profile adjustment of the mirror safety by the magnetic field MEDSI-PROC-04-44

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Mechanical design of the pinhole imaging system In the APS storage ring

MEDSI-PROC-04-45

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Analysis of the gold-copper braze joints in GLIDCOP ® For UHV components at the Advanced Photon Source

MEDSI-PROC-04-46

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Measurements of ground vibration at TLS

MEDSI-PROC-04-47

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Mechanical design of NSLS X-25 small gap undulator

MEDSI-PROC-04-48

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High precisions positioning design for the synchrotron radiation instrumentation

MEDSI-PROC-04-49

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Progress towards a revolute joint robot for the precision positioning of material samples or an X-ray detector

MEDSI-PROC-04-50

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NSLS II: a proposed facility

MEDSI-PROC-04-51

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Automation, designing the beamline to make the software possible MEDSI-PROC-04-52

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Thermal contact resistance study

MEDSI-PROC-04-53

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Study of the cooling for the SPARC RF deflector

MEDSI-PROC-04-55

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Site vibration study for the SPARC project

MEDSI-PROC-04-56

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Vibration control of vacuum system in X-ray beamlines Of SPRING-8

MEDSI-PROC-04-58

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New devices for high precision diffractometers

MEDSI-PROC-04-61

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Design and technology of the high heat-load photon shutters for the new front ends at APS

MEDSI-PROC-04-63

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Tribology in extreme environment: state of the art and some solutions for solid lubrication in UHV

MEDSI-PROC-04-66

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Precise optical slit for moderate heat-load soft X-ray beamlines

MEDSI-PROC-04-71

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Mechanical design of the Frelon 2K CDD camera

MEDSI-PROC-04-72

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Thermo-mechanical analysis for SR instrumentation

MEDSI-PROC-04-75

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Determination of the optimal operating conditions of Additional RF cavity in PLS with the computer simulations

MEDSI-PROC-04-76

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Status of a 3.2 T superconducting wiggler at NSRRC

MEDSI-PROC-04-77

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