

Beam Dynamics meets Magnets-II



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome and opening remarks

Monday, 1 December 2014 08:30 (25 minutes)

Presenters: STREUN, Andreas (Paul Scherrer Institut); SANFILIPPO, Stephane (Paul Scherrer Institut)

Session Classification: Future directions

Contribution ID: 2

Type: **not specified**

Challenges for Future Circular Colliders

Monday, 1 December 2014 08:55 (25 minutes)

Presenter: ZIMMERMANN, Frank (CERN)

Session Classification: Future directions

Contribution ID: 3

Type: **not specified**

Establishing C3, the Coherence between Accelerator Physics Requirements, Magnet Manufacture, and Magnetic Field Measurements

Monday, 1 December 2014 09:20 (25 minutes)

Presenter: RUSSENSCHUCK, Stephan (CERN)

Session Classification: Future directions

Contribution ID: 4

Type: **not specified**

Fixed Field Alternating Gradient accelerator: the future challenges

Monday, 1 December 2014 09:45 (25 minutes)

Presenter: MACHIDA, Shinji (STFC RAL)

Session Classification: Future directions

Contribution ID: 5

Type: **not specified**

Beam dynamics and magnet design challenges for the next generation of free electron lasers

Monday, 1 December 2014 10:40 (25 minutes)

Presenter: GIANNESSI, Luca (ENEA and Elettra-Sincrotrone Trieste)

Session Classification: Future directions

Contribution ID: 6

Type: **not specified**

Beam quality for high brightness beam: Application of SwissFEL

Monday, 1 December 2014 11:05 (25 minutes)

Presenter: REICHE, Sven (Paul Scherrer Institut)

Session Classification: Future directions

Contribution ID: 7

Type: **not specified**

Beam dynamics and magnet design challenges for 4th-generation storage ring light sources

Monday, 1 December 2014 11:30 (25 minutes)

Presenter: BORLAND, Michael (Argonne National Laboratory)

Session Classification: Future directions

Contribution ID: 8

Type: **not specified**

Beam dynamic and lattice proposal for the SLS 2.0

Monday, 1 December 2014 11:55 (25 minutes)

Presenter: STREUN, Andreas (Paul Scherrer Institut)

Session Classification: Future directions

Contribution ID: 9

Type: **not specified**

Design options for highly compact, superconducting cyclotrons and gantry magnets for hadron therapy

Monday, 1 December 2014 13:50 (20 minutes)

Presenter: MINERVINI, Joseph (Massachusetts Institute of Technology)

Session Classification: Medical applications

Contribution ID: **10**

Type: **not specified**

Magnets meet beams in gantries for medical application -1

Monday, 1 December 2014 14:10 (20 minutes)

Presenter: CASPI, Shlomo (Lawrence Berkeley National Laboratory)

Session Classification: Medical applications

Contribution ID: **11**

Type: **not specified**

Magnets meet beams in gantries for medical application -2

Monday, 1 December 2014 14:30 (20 minutes)

Presenter: BROUWER, Lucas (Lawrence Berkeley National Laboratory)

Session Classification: Medical applications

Contribution ID: 12

Type: **not specified**

Development of a superconducting gantry for the Carbon therapy

Monday, 1 December 2014 14:50 (20 minutes)

Presenter: IWATA, Yoshiyuki (National Institute of Radiological Sciences (NIRS))

Session Classification: Medical applications

Contribution ID: 13

Type: **not specified**

Innovative developments at the facility for the proton therapy at PSI: beam delivery systems with SC magnets

Monday, 1 December 2014 15:10 (20 minutes)

Presenter: SCHIPPERS, Jacobus Maarten (Paul Scherrer Institut)

Session Classification: Medical applications

Contribution ID: 14

Type: **not specified**

Beam Optics for a superconducting Gantry

Monday, 1 December 2014 16:00 (20 minutes)

Presenter: GERBERSHAGEN, Alexander

Session Classification: Medical applications

Contribution ID: 15

Type: **not specified**

Challenges to design and test fast ramped superconducting dipole magnet

Monday, 1 December 2014 16:20 (20 minutes)

Presenter: FABBRICATORE, Pasquale (INFN Sezione di Genova)

Session Classification: Medical applications

Contribution ID: 16

Type: **not specified**

Jefferson Lab CLAS12 Super-Conducting Solenoid magnet requirements and Design Evolution

Monday, 1 December 2014 16:40 (20 minutes)

Presenter: RAJPUT-GHOSHAL, Renuka (Jefferson Lab)

Session Classification: Medical applications

Contribution ID: 17

Type: **not specified**

Technology challenges in high field magnets for LHC upgrades and future accelerators

Wednesday, 3 December 2014 14:00 (30 minutes)

Presenter: BOTTURA, Luca (CERN)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: **18**

Type: **not specified**

Overview of the Beam Based Alignment techniques

Tuesday, 2 December 2014 08:50 (20 minutes)

Presenter: BARTOLINI, Riccardo (JAI Oxford and DLS)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: **19**

Type: **not specified**

Beam Based Alignment techniques for linacs

Tuesday, 2 December 2014 09:10 (20 minutes)

Presenter: AIBA, Masamitsu (Paul Scherrer Institut)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 20

Type: **not specified**

Small aperture magnets for the Light Sources: beam specifications meets design and construction

Tuesday, 2 December 2014 09:30 (20 minutes)

Presenter: LEIGH, Ben (Tesla Engineerign Ltd.)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 21

Type: **not specified**

Design of the magnets for the MAX IV project

Tuesday, 2 December 2014 09:50 (20 minutes)

Presenter: JOHANSSON, Martin (MAX IV Laboratory)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 22

Type: **not specified**

Vacuum system for MAX IV

Tuesday, 2 December 2014 10:40 (20 minutes)

Presenter: FERNANDES TAVARES, Pedro (MAX IV LABORATORY)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 23

Type: **not specified**

Experience in the design, construction and tests of small aperture magnets for the Light Sources

Tuesday, 2 December 2014 11:00 (20 minutes)

Presenter: BEECKMAN, William (Sigmaphi)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 24

Type: **not specified**

Magnets for the SwissFEL: from beam specifications to magnetic tests

Tuesday, 2 December 2014 11:20 (20 minutes)

Presenter: NEGRAZUS, Marco (PSI)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 25

Type: **not specified**

The ZEPTO project: tunable permanent magnet dipoles and quadrupoles

Tuesday, 2 December 2014 13:50 (20 minutes)

Presenter: SHEPHERD, Ben (STFC Daresbury Laboratory)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 26

Type: **not specified**

Magnets and insertion devices for the ESRF upgrade

Tuesday, 2 December 2014 14:10 (20 minutes)

Presenter: CHAVANNE, Joel (ESRF)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 27

Type: **not specified**

Summary of the 2014 Superconducting Undulator Workshop

Tuesday, 2 December 2014 14:30 (20 minutes)

Presenter: CLARKE, Jim (STFC Daresbury Laboratory)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 28

Type: **not specified**

Superconducting technologies for Light Source undulators

Tuesday, 2 December 2014 14:50 (20 minutes)

Presenter: PRESTEMON, Soren (LBNL)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 29

Type: **not specified**

Superconducting undulators: Experience from ANKA

Tuesday, 2 December 2014 15:10 (20 minutes)

Presenter: CASALBUONI, Sara (ANKA, KIT)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 30

Type: **not specified**

FEL undulators: from beam specifications to magnetic measurements

Tuesday, 2 December 2014 16:00 (20 minutes)

Presenter: Dr CALVI, Marco (Paul Scherrer Institut)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 32

Type: **not specified**

Design of the permanent undulators for the Linac Coherent Light Source Facility II

Tuesday, 2 December 2014 16:20 (20 minutes)

Presenter: ARBELAEZ, Diego (LBNL)

Session Classification: Magnets and undulators for light sources 2

Contribution ID: 33

Type: **not specified**

Overview of the activities at the Paul Scherrer Institut

Wednesday, 3 December 2014 09:00 (30 minutes)

Presenter: SEIDEL, Mike (Paul Scherrer Institut)

Session Classification: PSI visit

Contribution ID: 34

Type: **not specified**

SwissFEL, the hard X-ray FEL at PSI: overview and perspectives

Wednesday, 3 December 2014 09:30 (30 minutes)

Presenter: BRAUN, Hans-Heinrich (Paul Scherrer Institut)

Session Classification: PSI visit

Contribution ID: 36

Type: **not specified**

Dynamic aperture and field quality errors

Wednesday, 3 December 2014 14:40 (20 minutes)

Presenter: SCHMIDT, Frank (CERN)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 37

Type: **not specified**

Experience with the KEKB/SuperKEKB magnet fabrication and measurements

Wednesday, 3 December 2014 15:00 (20 minutes)

Presenter: MASUZAWA, Mika (KEK)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 38

Type: **not specified**

Magnet Alignment Challenges for an MBA Storage Ring

Tuesday, 2 December 2014 08:30 (20 minutes)

Presenter: JAIN, Animesh (Brookhaven National Laboratory)

Session Classification: Magnets and undulators for light sources 1

Contribution ID: 39

Type: **not specified**

Magnetic measurement techniques and systems for small and curved aperture magnets

Wednesday, 3 December 2014 15:20 (20 minutes)

Presenter: BUZIO, Marco (CERN)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 40

Type: **not specified**

Rotating coil measurement errors

Wednesday, 3 December 2014 16:10 (20 minutes)

Presenter: JAIN, Animesh (Brookhaven National Laboratory)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 41

Type: **not specified**

The new three axis Hall sensor of SENIS

Wednesday, 3 December 2014 16:30 (20 minutes)

Presenter: POPOVIC RENELLA, Dragana (SENIS)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 42

Type: **not specified**

Status of the nonlinear beam dynamics in SIS100

Wednesday, 3 December 2014 16:50 (20 minutes)

Presenter: FRANCHETTI, Giuliano (GSI)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 43

Type: **not specified**

SIS100 Dipole Magnets: Field Measurements and Representation

Wednesday, 3 December 2014 17:10 (20 minutes)

Presenter: SCHNIZER, Pierre (GSI Helmholtzzentrum für Schwerionenforschung mbH)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 44

Type: **not specified**

Bent combined function bending magnets and optics: the case of SESAME

Wednesday, 3 December 2014 17:30 (20 minutes)

Presenter: MILANESE, Attilio (CERN)

Session Classification: Magnet design, modelling and measurements 1

Contribution ID: 45

Type: **not specified**

Track: an accurate ray-tracing tool for magnet development at PSI

Thursday, 4 December 2014 08:30 (20 minutes)

Presenter: VRANKOVIC, Vjeran (PSI)

Session Classification: Magnet design, modelling and measurements 2

Contribution ID: 46

Type: **not specified**

Analytic design of the fringe field of the lattice magnets

Thursday, 4 December 2014 08:50 (20 minutes)

Presenter: MURATORI, Bruno (Daresbury Laboratory and Cockcroft Institute)

Session Classification: Magnet design, modelling and measurements 2

Contribution ID: 47

Type: **not specified**

Fringe field modeling for large aperture quadrupole

Thursday, 4 December 2014 09:10 (20 minutes)

Presenter: DALENA, Barbara (CEA-Saclay DSM/Irfu/SACM)

Session Classification: Magnet design, modelling and measurements 2

Contribution ID: 48

Type: **not specified**

Magnetic and Optical Model for the Proton Synchrotron at CERN

Thursday, 4 December 2014 09:30 (20 minutes)

Presenter: GILARDONI, Simone (CERN)

Session Classification: Magnet design, modelling and measurements 2

Contribution ID: 49

Type: **not specified**

FIDEL: the model to predict the magnetic state of the LHC

Thursday, 4 December 2014 09:50 (20 minutes)

Presenter: AQUILINA, Nicholas (University of Malta)

Session Classification: Magnet design, modelling and measurements 2

Contribution ID: 50

Type: **not specified**

Summary talks Medical

Thursday, 4 December 2014 11:20 (20 minutes)

Presenter: SCHIPPERS, Jacobus Maarten (Paul Scherrer Institut)

Session Classification: Summaries

Contribution ID: 51

Type: **not specified**

Summary talks Magnet and undulator for light sources

Thursday, 4 December 2014 11:40 (20 minutes)

Presenters: EINFELD, Dieter (MAX-Lab); SCHMIDT, Thomas (Paul Scherrer Institut)

Session Classification: Summaries

Contribution ID: 52

Type: **not specified**

Summary talks Magnet design, Modelling and measurements

Thursday, 4 December 2014 12:00 (20 minutes)

Presenters: SPENCER, Cherrill (SLAC National Accelerator Laboratory (retired from)); RUSSEN-SCHUCK, Stephan (CERN)

Session Classification: Summaries