

APPENDIX

PUBLICATIONS

A. Adelmann, M. Furman, *Self-consistent parallel 3D electron-cloud simulation in arbitrary external fields*, Proc. PAC'03, Portland, Oregon, USA, 3524 (2003).

H.P. Bijl, P. van Luijk, R.P. Coppes, J.M. Schippers, A.W.T. Konings, A.J. van der Kogel, *Unexpected changes of rat cervical spinal cord tolerance caused by inhomogeneous dose distributions*, Int. J. Radiat. Onc. Biol. Phys. **57**, 274 (2003).

M. Böge, J. Chrin, *Integrating Control Systems to Beam Dynamics Applications with CORBA*, Proc. PAC'03, Portland, Oregon, USA, 291 (2003).

P. Bosland, P. Brédy, S. Chel, G. Devanz, M. Luong, P. Craievich, G. Penco, M. Svandriik, M. Pedrozzi, W. Gloor, A. Anghel, E. Chiaveri, R. Losito, O. Aberle, S. Calatroni, P. Marchand, *Third Harmonic Superconducting Passive Cavities in ELETTRA and SLS*, 11th Workshop on RF-Superconductivity SRF2003, Lübeck, Germany, <http://.srf2003.desy.de> (2003).

G. Corsini, M. Dubs, B. Sigg, W. Wagner, *Heat Removal System: Final Update of Concept and Detail Design, Dimensional and Functional Issues*, Proc. 4th MEGAPIE Technical Review Meeting, Paris, France, (2003).

M. Dehler, R. Kramert, P. Pollet, D. Bulfone, M. Lonza, *Capabilities of the ELETTRA/SLS Multibunch Feedback Electronics*, Proc. DIPAC'2003, Mainz, Germany, 74 (2003).

M. Dehler, *Microwave measurement of intra bunch charge distributions*, Proc. DIPAC'2003, Mainz, Germany, 219 (2003).

R. Dölling, *Diagnostics of the PROSCAN Proton-Therapy Beam Lines*, Proc. DIPAC'2003, Mainz, Germany, 152 (2003).

S. Fetal, C.W.E. van Eijk, F. Fraga, J. de Haas, R. Kreuger, T.L. van Vuure, J.M. Schippers, *Dose imaging in radiotherapy with an Ar-CF₄ filled scintillating GEM*, Nucl. Instr. and Meth. A, **513**, 42 (2003).

G. Heidenreich, I. Ziegler, E. Schachinger, *Design of High Power Beam Dumps and Collimators*, Proc. ICANS-XVI, 16th Meeting of the Int. Collaboration on Advanced Neutron Sources, ed.: G. Mank, H. Conrad, Forschungszentrum Jülich, Germany, 991 (2003).

M. Humbel, S. Adam, A. Mezger, *Status Report of the PSI High Power Cyclotrons*, Proc. 23rd ECPM Warsaw/Krakow, Poland, publ. in Nukleonika, **48**, Suppl. 2, 141 (2003).

M. Pedrozzi, W. Gloor, P. Bosland, P. Bredy, S. Chel, G. Devanz, O. Aberle, E. Chiaveri, R. Losito, S. Marque, A. Anghel, P. Marchand, P. Craievich, A. Fabris, C. Pasotti, G. Penco, M. Svandriik, *First Operational Results of the 3rd Harmonic Superconducting Cavities in SLS and ELETTRA*, Proc. PAC'03, Portland, Oregon, USA, 878 (2003).

M. Pedrozzi, J.-Y. Raguin, W. Gloor, A. Anghel, M. Svandriik, G. Penco, P. Craievich, A. Fabris, C. Pasotti, E. Chiaveri, R. Losito, S. Marque, O. Aberle, P. Marchand, P. Bosland, S. Chel, P. Brédy, G. Devanz, *SLS Operational Performance with third Harmonic Superconducting System*, 11th Workshop on RF-Superconductivity SRF2003, Lübeck, Germany, <http://.srf2003.desy.de> (2003).

T. Schilcher, M. Böge, B. Keil, V. Schlott, *Commissioning of the Fast Orbit Feedback at SLS*, Proc. PAC'03, Portland, Oregon, USA, 3386 (2003).

J.M. Schippers, V. Vrankovic, D.C. George, *Beam-dynamics studies in a 250 MeV superconducting cyclotron with a particle tracking program*, Nukleonika **48**, 145 (2003).

D. Sütterlin, V. Schlott, H. Sigg, H. Jaeckel, *Development of a Bunch-Length Monitor with Sub-picosecond Time Resolution and Single Shot Capability*, DIPAC'2003, Mainz, Germany, 228 (2003).

M. Svandriik, G. Penco, P. Craievich, A. Fabris, C. Pasotti, M. Pedrozzi, A. Anghel, P. Marchand, P. Bosland, P. Brédy, S. Chel, G. Devanz, E. Chiaveri, S. Calatroni, R. Losito, S. Marque, *Performance of the Harmonic Superconducting Cavity at ELETTRA*, 11th Workshop on RF-Superconductivity SRF2003, Lübeck, Germany, <http://.srf2003.desy.de> (2003)

C. Talarico, L. Semeraro, A. Lo Bue, A. Gambitta, A. Turchet, F. Wei, C. Cassani, *Survey and Alignment of ELETTRA Storage Ring*, Proc., Optical Measurement Systems for Industrial Inspection Munich, Germany, III, SPIE **5144**, 831 (2003).

P. van Luijk, T.C. Delvigne, C. Schilstra, J.M. Schippers, *Estimation of parameters of dose-volume models and their confidence limits*, Phys. Med. Biol. **48**, 1863 (2003).

INVITED TALKS

A. Adelmann
Space Charge in Circular Machines and Beamlines
Computational Science Seminar, University of Erlangen, Germany
November 20, 2003

M. Böge
Orbit Control and Stability at the SLS
BESSY, Berlin, Germany
June 20, 2003

T. Korhonen
SLS Timing System
SLAC Timing Futures Workshop, Menlo Park, USA
September 16 - 17, 2003

A. Lüdeke
Status of the Swiss Light Source
 11th Europ. Light Source Workshop, Grenoble, France
 November 17 - 18, 2003

A. Lüdeke
Design, Performance and Experience with the Fast Orbit Feedback System
 11th Europ. Light Source Workshop, Grenoble, France
 November 17 - 18, 2003

L. Rivkin
Evolution of Light Sources
 PAC'03, Portland, Oregon, USA
 May 14, 2003

J.M. Schippers
Protontherapy: A Dream comes True
 Farewell symposium Wim Brouwer, University Hospital Nijmegen, the Netherlands
 June 12, 2003

J.M. Schippers
Gas scintillation: a new method for dose imaging in protontherapy, 7th Conference of the European Society for Engineering and Medicine (ESEM), Halle / Saale, Germany
 September 17 - 21, 2003

V. Schlott
Verwendung von GHz und THz Strahlung in modernen Beschleunigern
 Seminar über Mikrowellen- und Atmosphärenphysik, Institut für Angewandte Physik / Universität Bern Switzerland
 January 31, 2003

A. Wrulich
Synchrotron Light Sources, Present and Future
 Photonics Day, EPFL, Lausanne, Switzerland
 June 2003

ORAL PRESENTATIONS

A. Adelman
GenTrackE (General Particle Tracking Engine)
 XII ICFA Beam Dynamics Mini Workshop on Space Charge Simulation, Trinity College, Oxford, UK
 April 2 - 4, 2003

M. Böge
Orbit Stability and Top-Up Operation at the SLS
 Damping Ring Workshop DR2003, Daresbury Laboratory, Daresbury, UK
 January 28, 2003

M. Böge
Integrating Control Systems to Beam Dynamics Applications with CORBA
 PAC'03, Portland, Oregon, USA
 May 14, 2003

M. Böge
Orbit Control at SLS
 PETRA III Miniworkshop, DESY, Hamburg, Germany,
 September, 18, 2003

M. Dehler
Capabilities of the ELETTRA/SLS Multi Bunch Feedback Electronics
 DIPAC'2003, Mainz, Germany
 May 5 - 7, 2003

M. Dehler
The Low Emittance Gun Project, Advances in Electromagnetic Research
 Joint Workshop of TU Rostock/TU Darmstadt, Heringsdorf, Germany
 August 18 - 22, 2003

R. Geus
Performance comparison of SWIG generated Python wrappers and hand-optimised Python wrappers for C/C++ code
 Seminar at Simula Institute, Oslo, Norway
 October 27, 2003

R. Geus
Towards a Fast Parallel Sparse Matrix-Vector Multiplication
 Seminar at Simula Institute, Oslo, Norway
 October 27, 2003

R. Geus
Methods and Software for efficiently solving large sparse symmetric eigenvalue problems with application to the design of accelerator cavities
 Seminar at Simula Institute, Oslo, Norway
 October 22, 2003

R. Geus
PySparse - A Sparse Matrix Library for Python,
 Seminar at Simula Institute, Oslo, Norway
 October 10, 2003

T. Korhonen
PSI Timing Masters and Slaves
 EPICS Collaboration Meeting 2003, Abingdon UK
 June 18 - 20, 2003

T. Korhonen
Concept of PROSCAN Patient Safety System
 ICALEPCS'03, Gyeongju, Korea
 October 13 - 17, 2003

A. Lüdeke
Control of Digital Power Supplies
 EPICS Collaboration Meeting 2003, Abingdon, UK
 June 18 - 20, 2003

A. Lüdeke
Name Selection on Client Side
 EPICS Collaboration Meeting 2003, Abingdon, UK
 June 18 - 20, 2003

M. Pedrozzi
SLS RF Operation Report 2003
 ESLS-RF Meeting, Karlsruhe 2003, Germany
 October 16 - 17, 2003

M. Pedrozzi
Phase shifter and IQ demodulator
 ESLS-RF Meeting, Karlsruhe 2003, Germany
 October 16 - 17, 2003

J.M. Schippers

Dose imaging with an Ar-CF₄ filled scintillating GEM
38th Workshop of the Proton Therapy CoOperative
Group, Chester, UK
May 14 - 16, 2003

T. Schilcher

SLS Diagnostic Devices and Orbit Feedback Control
Tri-centre Workshop on Beam Position Monitors for
Medium Energy Synchrotron Sources, Orsay, France
September 29 – 30, 2003

T. Schilcher

Digital BPM System of the Swiss Light Source
DESY, Hamburg, Germany
September 18 – 19, 2003

POSTERS

A. Adelman, *Self-consistent parallel 3D electron-cloud simulation in arbitrary external fields*, PAC'2003, Portland, Oregon, USA, May 12 - 16, 2003.

D. Anicic, M. Gasche, H. Lutz, A.C. Mezger, *PSI Proton Accelerator Control System Upgrade*, ICALEPCS'03, Gyeongju, Korea, October 13 – 17, 2003.

R. Bieber, M. Justen, C. Honingh, S. Glenz, A.M. van der Berg, P. van Luijk, H. Kiewiet, J.M. Schippers, P. Nieminen *Proton irradiation of SIS detectors for space application*, RADECS 2003, Noordwijk, the Netherlands, September 15 - 19, 2003.

P. Bosland, P. Brédy, S. Chel, G. Devanz, M. Luong, P. Craievich, G. Penco, M. Svandrlík, M. Pedrozzi, W. Gloor, A. Anghel, E. Chiaveri, R. Losito, O. Aberle, S. Calatroni, P. Marchand, *Third Harmonic Superconducting Passive Cavities in ELETTRA and SLS*, 11th Workshop on RF-Superconductivity SRF2003, Lübeck, Germany, September 8 – 12, 2003.

Y. Chernousko, A. Gonias, M. T. Heron, T. Korhonen, J. Pietarinen, *Diamond Timing System Developments*, ICALEPCS'03, Gyeongju, Korea, October 13 - 17, 2003.

M. Dach, T. Korhonen, T. Pal, *Interfacing CANbus to the EPICS at SLS*, ICALEPCS'03, Gyeongju, Korea, October 13 - 17, 2003.

M. Dehler, *Microwave measurement of intra bunch charge distributions*, 6th European Workshop on Beam Diagnostics and Instrumentation for Particle Accelerators, Mainz, Germany, May 5 - 7, 2003.

R. Dölling, *Diagnostics of the PROSCAN Proton-Therapy Beam Lines*, Proc. DIPAC'2003, Mainz, Germany, May 5 – 7, 2003.

D.C. George, F. Jenni, *The Design and Manufacture of the Fast Kicker Magnet for the Ultra Cold Neutron Facility (UCN)*, 18th Int. Conference on Magnet Technology (MT-18), Iwate, Japan October 20 - 24, 2003.

M. Heiniger, S. Hunt, *Post-Mortem Analysis of Failures in Accelerator Systems*, ICALEPCS'03, Gyeongju, Korea, October 13 - 17, 2003.

B. Kalantari, T. Korhonen, *New Features of SLS Timing System*, ICALEPCS'03, Gyeongju, Korea, October 13 - 17, 2003.

T. Korhonen, R. Broomfield, M. Heiniger, T. Pal, *Database Applications for Control System Hardware Management*, ICALEPCS'03, Gyeongju, Korea, October 13 - 17, 2003.

H. Lutz, D. Anicic, A.C. Mezger *Migration of the Configuration Database for PSI Cyclotron Accelerators*, ICALEPCS'03, Gyeongju, Korea, October 13 - 17, 2003.

M. Pedrozzi, W. Gloor, P. Bosland, P. Bredy, S. Chel, G. Devanz, O. Aberle, E. Chiaveri, R. Losito, S. Marque, A. Anghel, P. Marchand, P. Craievich, A. Fabris, C. Pasotti, G. Penco, M. Svandrlík, *First Operational Results of the 3rd Harmonic Superconducting Cavities in SLS and ELETTRA*, Portland, Oregon, USA; May 12 - 16, 2003.

M. Pedrozzi, J.-Y. Raguin, W. Gloor, A. Anghel, M. Svandrlík, G. Penco, P. Craievich, A. Fabris, C. Pasotti, E. Chiaveri, R. Losito, S. Marque, O. Aberle, P. Marchand, P. Bosland, S. Chel, P. Brédy, G. Devanz, *SLS Operational Performance with third Harmonic Superconducting System*, 11th Workshop on RF-Superconductivity, SRF2003, Lübeck, Germany, September 8 – 12, 2003.

T. Schilcher, M. Böge, B. Keil, V. Schlott, *Commissioning of the Fast Orbit Feedback at SLS*, PAC'03, Portland, Oregon, USA, May 12 - 16, 2003.

V. Schlott, M. Böge, *Electron Beam Stabilization*, ESFRI XFEL-Workshop, DESY, Hamburg, Germany, October 30 – 31, 2003.

D. Sütterlin, V. Schlott, H. Sigg, H. Jaeckel, *Development of a Bunch-Length Monitor with Sub-picosecond Time Resolution and Single Shot Capability*, DIPAC'2003, Mainz, Germany, 228 (2003).

M. Svandrlík, G. Penco, P. Craievich, A. Fabris, C. Pasotti, M. Pedrozzi, A. Anghel, P. Marchand, P. Bosland, P. Brédy, S. Chel, G. Devanz, E. Chiaveri, S. Calatroni, R. Losito, S. Marque, *Performance of the Harmonic Superconducting Cavity at ELETTRA*, 11th Workshop on RF-Superconductivity SRF2003, Lübeck, Germany, September 8 – 12, 2003.

TEACHING ACTIVITIES

A. Adelman

Statistics and Probability Theory

University of Applied Sciences Zurich

WS 03/04

M. Böge

Orbit Feedback

CERN/PSI Accelerator School on Synchrotron Radiation and Free Electron Lasers, Brunnen, Switzerland

July 2 - 9, 2003

M. Böge

Bemerkungen zum Thema Orbit

SLS Operator Training, PSI, Villigen, Switzerland

March 16, 2003

J. Cherix

Elektronik

Technikerschule TS, Zürich

WS / SS 2003

W. Joho

Fun with Formulas

CERN/PSI Accelerator School on Synchrotron Radiation and Free Electron Lasers, Brunnen, Switzerland

July 2 – 9, 2003

L. Rivkin

Synchrotron Radiation and Electron Dynamics

CERN/PSI Accelerator School on Synchrotron Radiation and Free Electron Lasers, Brunnen, Switzerland

July 2 – 9, 2003

L. Rivkin

Electron Dynamics with Damping

CAS Intermediate Accelerator Physics Course, Zeuthen, Germany

September 2003

L. Rivkin, J. Ulbricht

Teilchenbeschleuniger und Detektoren der Hochenergiephysik

ETH Zürich

WS 2003/2004

L. Schulz

Vacuum Aspects

CERN/PSI Accelerator School on Synchrotron Radiation and Free Electron Lasers, Brunnen, Switzerland

July 2 – 9, 2003

P.K. Sigg

Referee for Diploma Thesis Papers

Elektrotechnik & Informatik, Fachhochschule Aargau 2003

A. Wrulich

Accelerator Physics

EPFL, Lausanne, Switzerland

WS 2003

A. Wrulich

Particular Features of Light Sources

CERN Accelerator School, Zeuthen, Belgium

September 2003

MEMBERSHIP IN EXTERNAL COMMITTEES

T. Pal

- Journal of Systemics, Cybernetics and Informatics, ISSN: 1690-4524, Reviewer

M. Böge

- Physical Review Special Topics - Accelerators and Beams (PRST-AB), Referee

A. Adelman

- 31st ICFA Advanced Beam Dynamics Workshop on Electron-Cloud Effects ELOUD 04, Program Committee
- IPDPS, Program Committee

L. Rivkin

- SOLEIL Machine Advisory Committee (Chairman)
- European Physical Society Interdivisional Group on Accelerators, (Chairman of the Board)
- Editorial Board of Phys. Rev. ST-AB
- PAC2005, Organising Committee
- APAC2004, International Organising Committee
- CERN Accelerator School, Advisory Committee
- Joint Universities Accelerator School, Program Committee

W. Roser

- Swiss Society for Radiation Biology and Medical Physics, Board member
- Schweizerischer Elektrotechnischer Verein, Mitglied des Technischen Komitees 62 (Elektrische Apparate in medizinischer Anwendung)

V. Schlott

- DIPAC'2003, Scientific Program Committee
- DIAMOND Light Source, UK, Technical Advisory Committee
- TESLA Collaboration Board
- TESLA Search Committee
- CARE Governing Board
- "Working Group on Scientific and Technical Issues for the European X-FEL" (STI-XFEL Working Group)

P.A. Schmelzbach

- Int. Conferences on Cyclotrons and their Applications, Advisory Committee
- European Cyclotron Progress Meetings, Advisory Committee
- "Cyclotrons 2004" Int. Program Committee

P.K. Sigg

- NEA/NSC/WPPT (Working Party on Partitioning & Transmutation), Subgroup for Accelerator Utilisation and Reliability
- Technical Cooperation Expert for IAEA, Korea

A.F. Wrulich

- DESY, Hamburg, Germany, Scientific Council and Machine Advisory Committee
- DIAMOND Light Source, UK, Technical Advisory Committee (Chairman)
- BESSY II, Berlin, Germany, Scientific Advisory Committee
- ELETTRA, Sincrotrone Trieste, Italy, Machine Advisory Committee (Chairman)
- Australian Synchrotron, International Advisory Board
- Accelerator Science and Technology Centre of CCLRC, UK, ASTeC Board
- LHC Cost & Schedule Committee
- 'Journal of Synchrotron Radiation', Co-Editor

AWARDS

B. Keil

A Unified Distributed DSP-Based Beam Diagnostics and Global Feedback System for Ramped Electron Storage Rings: Development, Construction and Applications

Dissertationspreis 2003 der Universität Dortmund