

APPENDIX

PUBLICATIONS

- A. Adelmann, J. Amundson, P. Spentzouris, J. Qiang, R.D. Ryne, *A Test Suite of Space-charge Problems for Code Benchmarking*, Proc. EPAC'04 Lucerne, Switzerland, 1942 (2004).
- A. Adelmann, S. Adam, R. Dölling, M. Pedrozzi, J.-Y. Raguin, P.-A. Schmelzbach, *Beam Dynamic Studies of the 72 MeV Beamline with a 'Super Buncher'*, Proc. EPAC'04 Lucerne, Switzerland, 1945 (2004).
- A. Adelmann, A. Bonelli, W.P. Petersen, C.W. Ueberhuber, *Communication Efficiency of Parallel 3D FFTs*, VECPAR04, Valencia, Spain, III, 901 (2004).
- M. Bopp, H. Fitze, *Coupled Field Analysis of a High Power 50 MHz Cyclotron Cavity*, 22nd CAD-FEM Users Meeting, ANSYS Conference, Dresden, Germany (2004).
- M. Böge, *Achieving Sub-micron Stability in Light Sources*, Proc. EPAC'04, Lucerne, Switzerland, 211 (2004).
- M. Dehler, S.C. Leemann, A.E. Candel, *Electron Beam Dynamics Simulations for the Low Emittance Gun*, Proc. EPAC'04, 2505 (2004).
- M. Dehler, R. Kramert, P. Pollet, T. Schilcher, D. Bulfone, M. Lonza, *Commissioning Results of the Multi Bunch Feedback System at SLS*, Proc. EPAC'04, 2508 (2004).
- M. Dehler, R. Kramert, P. Pollet, D. Bulfone, M. Lonza, *Capabilities of the ELETTRA/SLS Multibunch Feedback Electronics*, Proc. DIPAC'03, 74 (2004).
- M. Dehler, *Microwave measurement of intra bunch charge distributions*, Proc. DIPAC'03, 217 (2004).
- R. Dölling, Profile, *Current and Halo Monitors of the PROSCAN Beam Lines*, BIW 2004, Knoxville, Tennessee, USA, AIP Conf. Proc. **732**, 244 (2004).
- P.A. Duperrex, U. Frei, G. Gamma, U. Müller, L. Rezzonico, *Latest Diagnostic Electronics Development for the PROSCAN Proton Accelerator*, BIW 2004, Knoxville, Tennessee, USA, AIP Conf. Proc. **732**, 268 (2004).
- P.A. Duperrex, U. Frei, G. Gamma, U. Müller, L. Rezzonico, *Latest Diagnostic Electronics Development for the PROSCAN Proton Accelerator*, BIW 2004, Knoxville, Tennessee, May 2004, AIP Conf. Proc. **732**, 268 (2004).
- H. Fitze, M. Bopp, A. Mezger, J.-Y. Raguin, P. Schmelzbach, P. Sigg, *Developments at PSI (Including New RF Cavities)*, Proc. Cyclotrons 2004, Tokyo, Japan (2004), (in press).
- R. Ganter, A.E. Candel, M. Dehler, G.J. Gobrecht, C. Gough, S.C. Leemann, K.L. Li, M. Paraliev, M. Pedrozzi, J.-Y. Raguin, L. Rivkin, V. Schlott, L. Schulz, A. Streun, A. Wrulich, *Preliminary Results on a Low Emittance Gun Based on Field Emission*, Proc. EPAC'04, Lucerne, Switzerland, 306 (2004).
- R. Ganter, A. Candel, M. Dehler, J. Gobrecht, C. Gough, G. Ingold, S.C. Leemann, K.S.B. Li, M. Paraliev, M. Pedrozzi, J.-Y. Raguin, L. Rivkin, V. Schlott, H. Sehr, A. Streun, A. Wrulich, S. Zelenika, *Low Emittance Gun Project based on Field Emission*, Proc. FEL 2004, Trieste - Italy, 602 (2004).
- R. Ganter, K. Li, M. Dehler, J. Gobrecht, L. Rivkin, A. Wrulich, *Field Emitter Arrays for a Free Electron Laser Application*, Proc. IVNC 2004, Cambridge, USA, 112 (2004).
- R. Ganter, J.-Y. Raguin, M. Dehler, J. Gobrecht, C. Gough, G. Ingold, S. Leemann, M. Paraliev, M. Pedrozzi, L. Rivkin, V. Schlott, A. Streun, A. Candel, K. Li, A. Wrulich, *Ultra Low Emittance Electron Gun Project for FEL Application*, Proc. LINAC'04, Lübeck, Germany, 707 (2004).
- B. Kalantari, T. Korhonen, A. Lüdeke, Ch. Quitmann, *Enhancements of Top-up Operation at the Swiss Light Source*, Proc. EPAC'04, Lucerne, Switzerland, 309 (2004).
- B. Kalantari, V. Schlott, T. Korhonen, *Bunch Pattern Control in Top-up Mode at the Swiss Light Source*, Proc. EPAC'04, Lucerne, Switzerland, 2885 (2004).
- B. Kalantari, T. Korhonen, *Timekeeping Mechanism at SLS/APS Control System*, Proc. EPAC'04, Lucerne, Switzerland, 1948 (2004).
- B. Keil, K. Wille, *A DSP-Based Fast Orbit Feedback System for the Synchrotron Light Source DELTA*, Proc. EPAC'04, Lucerne, Switzerland, 2514 (2004).
- B. Keil, K. Wille, *The DSP-based Betatron Tune Feedback of the Ramped 1.5 GeV Electron Storage Ring BoDo*, Proc. EPAC'04, Lucerne, Switzerland, 2511 (2004).
- B. Keil, C. Buehler, P.A. Duperrex, U. Greuter, R. Kramert, P. Pollet, V. Schlott, N. Schlumpf, P. Spuhler, *The Generic VME PMC Carrier Board: A Common Digital Hardware Platform for Beam Diagnostics and Feedbacks at PSI*, Proc. EPAC'04, Lucerne, Switzerland, 2517 (2004).
- J. Krempasky, M. Böge, T. Schilcher, V. Schlott, T. Schmidt, *The Use of Photon Monitors at the Swiss Light Source*, Proc. EPAC'04, Lucerne, Switzerland, 2520 (2004).
- G.P. Latsas, G.P. Anastasiou, M. Dehler, P. Queffelec, N.F. Dasyas, *Calculation of the electromagnetic waves in nonperiodic corrugated waveguides with dielectric loading*, IEEE Trans. Plasma Sci., PS-32, 1310 (2004).

- K.S.B. Li, M. Dehler, R. Ganter, J. Gobrecht, J.-Y. Raguin, L. Rivkin, A. Wrulich, *Field Emitter Arrays for a Free Electron Laser Application*, Proc. FEL'04, Trieste, Italy, 606 (2004).
- A. Lüdeke, *Operation of the Swiss Light Source: Top-up for Highest Performance*, Proc. EPAC'04, Lucerne, Switzerland, 2281 (2004).
- K. Nünighoff, H. Conrad, D. Filges, F. Goldenbaum, R.D. Neef, W. Ninaus, N. Paul, C. Pohl, H. Schaal, A. Smirnov, H. Stelzer, H. Tietze-Jänsch, M. Wohlmuther, *The JESSICA Experiment – Part I: Improvements of the JESSICA Experiment*, Proc. ACoM-6, 155 (2004).
- K. Nünighoff, Ch. Pohl, V. Bollini, A. Bubak, H. Conrad, D. Filges, H. Glückler, F. Goldenbaum, G. Hansen, B. Lensing, R.-D. Neef, N. Paul, D. Prasuhn, K. Pysz, H. Schaal, H. Soltner, H. Stelzer, H. Tietze-Jänsch, W. Bernnat, J. Keinert, M. Mattes, W. Ninaus, S. Koulikov, A. Smirnov, M. Wohlmuther, *Ice moderator experiments at very low temperatures*, Eur. Phys. J. A **22**, 519 (2004).
- E. Pedroni, R. Bearpark, T. Böhringer, A. Coray, J. Duppich, S. Fors, D. George, M. Grossmann, G. Goitein, C. Hilbes, M. Jermann, S. Lin, A. Lomax, M. Negrazus, M. Schippers, G. Kotrle, *The PSI Gantry 2: a second generation proton scanning gantry*, Z. Med. Phys. **14**, 25 (2004).
- M. Pedrozzi, G. Ingold, *Extended Parametric Evaluation for 1 Å FEL - Emittance and Current Requirements*, Proc. LINAC'04, Lübeck, Germany, 395 (2004).
- M. Pedrozzi, V. Serrière, *Measurements of transient Effects on Bunch Elongation with Super-3HC at SLS*, 8th ESLS RF Meeting, Daresbury, UK, (2004).
- C. Pohl, H. Conrad, D. Filges, F. Goldenbaum, R.D. Neef, W. Ninaus, K. Nünighoff, N. Paul, H. Schaal, A. Smirnov, H. Stelzer, H. Tietze-Jänsch, M. Wohlmuther, *The JESSICA Experiment – Part II: Results from the JESSICA Experiment*, Proc. ACoM-6, 175 (2004).
- J.-Y. Raguin, A. Adelmann, M. Bopp, H. Fitze, M. Pedrozzi, P. Schmelzbach, P. Sigg, *Comparative Design Studies of a Super Buncher for the 72 MeV Injection Line of the PSI Main Cyclotron*, Proc. EPAC'04, Lucerne, Switzerland, 1162 (2004).
- S. Redaelli, R.W. Assmann, W. Coosemans, M. Böge, M. Dehler, L. Rivkin, *Vibration Measurements at the Swiss Light Source (SLS)*, Proc. EPAC'04, 2278 (2004).
- T. Schilcher, M. Böge, B. Keil, P. Pollet, V. Schlott, *Commissioning and Operation of the SLS Fast Orbit Feedback*, Proc. EPAC'04, Lucerne, Switzerland, 2523 (2004).
- V. Schlott, M. Böge, B. Keil, P. Pollet, T. Schilcher, *Fast Orbit Feedback and Beam Stability at the Swiss Light Source*, BIW 2004, Knoxville, Tennessee, May 2004, AIP Conf. Proc. **732**, 174 (2004).
- V. Schlott, M. Dach, Ch. David, B. Kalantari, M. Pedrozzi, A. Streun, *Using Visible Synchrotron Radiation at the SLS Diagnostics Beamline*, Proc. EPAC'04, Lucerne, Switzerland, 2526 (2004).
- P.K. Sigg, *Summary of the 3rd Workshop on High Power RF-systems for Accelerators*, Proc. Cyclotrons 2004, Tokyo, Japan (2004). (in press)
- S. Teichmann, B. Amrein, J. Gerig, W. Hajdas, H. Temnitzer, *Dose Rate Measurements behind different Shielding for 250 MeV Protons on a thick Copper Target*, Proc. SATIF 6 ('02), OECD 37, (2004).
- A. Winter, M. Tonutti, S. Casalbuoni, P. Schmüser, S. Simrock, B. Steffen, T. Korhonen, T. Schilcher, V. Schlott, H. Sigg, D. Suetterlin, *Bunch Length Measurements at the SLS LINAC Using Electro-Optical Techniques*, Proc. EPAC'04, Lucerne, Switzerland, 253 (2004).

DIPLOMA THESES

P.A. Duperrex

Degree of Executive Master of Business Administration in Management in Telecommunication
University of Fribourg, iimt, Switzerland
November 2004

K. Li

Novel Electron Sources for a Low Emittance Gun
Supervised by R. Ganter, J. Gobrecht, R. Eichler
Institute of Particle Physics, ETH Zurich and PSI
May 2004

INVITED TALKS

A. Adelmann

The zBox and the Horizon project
SOS8 Charleston, South Carolina, USA
April 12-14, 2004

A. Adelmann

Numerical and Computational Methods in Electron Cloud Simulations: Present and Future
ECLOUD'04, Napa, USA
April 19-22, 2004

A. Adelmann

Recent Results on Simulations of High Intensity Beams in Cyclotrons
Cyclotrons 2004, Tokyo, Japan
October 18-22, 2004

M. Böge
Achieving Sub-micron Stability in Light Sources
 EPAC'04, Lucerne, Switzerland
 July 8, 2004

M. Böge
"Top-up" Operation at the Swiss Light Source
 SSRL/SLAC, Menlo Park, USA
 January 30, 2004

H. Fitze
Developments at PSI (including new RF cavity)
 Cyclotrons 2004, Tokyo, Japan
 October 18-22, 2004

M. Humbel
Experience with and Theoretical Limits of High Intensity High Brightness Hadron Beams Accelerated by Cyclotrons
 ICFA HB2004, Bensheim, Germany
 October 22, 2004

A.C. Mezger
Control of a 1 MW Beam
 Cyclotrons 2004, Tokyo, Japan
 October 18-22, 2004

L.Rivkin
Synchrotron Radiation Facilities
 SLAC-Novosibirsk International Symposium "40 Years of Lepton Colliders", BINP, Novosibirsk, Russia
 May 15-17, 2004

L. Rivkin
Swiss Light Source: first results and future directions
 XV Int. Synchrotron Radiation Conference SRI-2004,
 BINP, Novosibirsk, Russia
 July 19-22, 2004

J.M. Schippers
Physics Projects for Radiation Therapy: from Biology to Accelerators
 Hahn Meitner Institut, Berlin, Germany
 March 2, 2004,

V. Schlott
Electro-Optical Measurements at the Swiss Light Source LINAC at PSI
 SLAC Accelerator Seminar, Menlo Park, California,
 USA
 July 1, 2004

V. Schlott
Tools for Dynamic Alignment and Orbit Stabilization
 SLAC Accelerator Seminar, Menlo Park, California,
 USA
 July 1, 2004

P. Sigg
Summary of the 3rd Workshop on High Power RF-Systems for Accelerators
 Cyclotrons 2004, Tokyo, Japan
 October 18-22, 2004

P. Sigg
Summary of the Working Group Discussion on Accelerators
 4th Int. Workshop on Utilization and Reliability of High Power Accelerators, KAERI, Daejon, Korea
 May 16-19, 2004

A.F. Wrulich
Features of modern Storage Ring based Light Sources
 XV Int. Synchrotron Radiation Conference SRI-2004,
 BINP, Novosibirsk
 July 19-22, 2004

ORAL PRESENTATIONS

A. Adelmann
Challenges in Electron Cloud Simulations
 SIAM Conference on Parallel Processing for Scientific Computing (PP04), San Francisco, USA
 February 25-27, 2004

M. Bopp
The New 50 MHz Ring Cyclotron Cavity, Mechanical Design and FEA-Simulation
 3rd CW and High Average Power RF Systems Users Group Meeting, PSI, Villigen, Switzerland
 April 5, 2004

M. Bopp
Coupled Field Analysis of a High Power 50 MHz Cyclotron Cavity
 22nd CAD-FEM Users meeting, ANSYS Conference, Dresden, Germany
 November 11, 2004

M. Böge
Orbit Stability at the SLS
 IWBS 2004, Grindelwald, Switzerland
 December 6, 2004

A. Candel
Massive Parallel Particle in Cell Code for the Simulation of Field Emitter Based Electron Sources
 ICAP 2004, St. Petersburg, Russia
 June 28 - July 2, 2004

J. Cherix
Fast Turn-on of the High-Q RF-Cavities to Avoid Multipacting
 3rd CW and High Average Power RF System Users Group Meeting, PSI Villigen, Switzerland
 April 7, 2004

R. Dölling

Beam Diagnostics at the PSI Proton Accelerators
LANSCE-1 Beam Diagnostics Seminar, Los Alamos,
USA
May 10, 2004

R. Geus

Python Wrapper Tools: A Performance Study
EuroPython 2004, Göteborg, Sweden
June 8, 2004

B. Keil

The Generic VME PMC Carrier Board: Status and Perspectives of a Common Digital Platform for Beam Diagnostics and Feedbacks at PSI
IWBS 2004, Grindelwald, Switzerland
December 7, 2004

M. Pedrozzi

Landau Cavities,
Workshop on small Emittances Lattices, Max Lab,
Lund, Sweden
March 10-12, 2004

M. Pedrozzi

Operating Experience with the SLS RF Systems
3rd CW and High Average Power RF Systems Users
Group Meeting, PSI, Villigen, Switzerland
April 5, 2004

M. Pedrozzi

1Å FEL Parametric Study
DESY, Hamburg, Germany
April 22-23, 2004

M. Pedrozzi

LEG Projekt
Maschinenbaukolloquium, PSI, Villigen, Switzerland
May 5, 2004

J.-Y. Raguin

Preliminary Design Studies of a Rebuncher for the 72 MeV Injection Line of the PSI Main Cyclotron
3rd CW and High Average Power RF Systems Users
Group Meeting, PSI, Villigen, Switzerland
April 5, 2004

J.-Y. Raguin

Ultra Low Emittance Electron Gun Project for FEL Application
LINAC 2004, Lübeck, Germany
August 19, 2004

T. Schilcher

Fast Orbit Feedback Operation at the SLS
IWBS 2004, Grindelwald, Switzerland
December 9, 2004

J.M. Schippers

Reliability as a Design Concept in PROSCAN
40th Workshop of the Proton Therapy CoOperative
Group, Paris, France
June 17, 2004

J.M. Schippers

Overview of the PROSCAN Facility
Cyclotrons'04, Tokyo, Japan
October 18-22, 2004

J.M. Schippers

Beam Dynamics Studies in Distorted Fields of a 250 MeV SC Cyclotron
Cyclotrons'04, Tokyo, Japan
October 18-22, 2004

V. Schlott

Fast Orbit Feedback and Beam Stability at the Swiss Light Source
BIW 2004, Knoxville, Tennessee, USA
May 4, 2004

V. Schlott

Report on Internal "Mini Workshop" on Beam Stability at SLS
IWBS 2004, Grindelwald, Switzerland
December 7, 2004

P.A. Schmelzbach

High Energy Transport Lines and Delivery Systems for Intense Proton Beams
4th Int. Workshop on Utilization and Reliability of High Power Accelerators, KAERI, Daejon, Korea
May 16-19, 2004

L. Stingelin

Large Scale Electromagnetic Modeling
3rd CW and High Average Power RF-Systems Users
Group Meeting, PSI, Villigen, Switzerland
April 6, 2004

L. Stingelin

Beam-Cavity Interaction Analysis for High Intensity Cyclotrons
SLAC Advanced Computations Department Meeting
Menlo Park CA, USA
August 4, 2004

A. Streun

Dynamic Alignment
IWBS 2004, Grindelwald, Switzerland
December 7, 2004

W. Tron, M. Schneider

A 220kW/150MHz (CW) Power Amplifier for the Flat Topping Cavity
3rd CW and High Average Power RF System Users
Group Meeting, PSI Villigen, Switzerland
April 7, 2004

E. Zimoch

EPICS at the Protein Crystallography Beamlines of the SLS
EPICS Collab. Meeting 2004, Ricotta, Tokai, Japan
December 8-10, 2004

E. Zimoch
Protein Crystallography Beamline Simulation
 NOBUGS 2004 Conference, PSI, Villigen, Switzerland
 October 18-20, 2004

POSTERS

A. Adelmann, *3D Modeling of the Debuncher and Achromat*, Physics with a Multi-MW Proton source, CERN, Geneva, Switzerland, May 25-27, 2004.

A. Adelmann, M.A. Furman ,*PARSEC: parallel self-consistent 3D electron-cloud simulation in arbitrary external fields*, CERN Workshop on Beam Dynamics in Future Hadron Colliders and Rapidly Cycling High-Intensity Synchrotrons (CARE-HHH-APD), CERN, Geneva, Switzerland, November 8-11, 2004.

A. Adelmann, R.D. Ryne, J. Qiang , *Space-charge simulation codes*, CERN Workshop on Beam Dynamics in Future Hadron Colliders and Rapidly Cycling High-Intensity Synchrotrons (CARE-HHH-APD), CERN, Geneva, Switzerland, November 8-11, 2004.

A. Adelmann, A. Adam, R. Dölling, M. Pedrozzi, J.-Y. Raguin, P. Schmelzbach, *Beam Dynamic Studies of the 72 MeV Beamline with a 'Super Buncher'*, Proc. EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

M. Dehler, S.C. Leemann, A.E. Candel, , *Electron Beam Dynamics Simulations For the Low Emittance Gun*, Proc. EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

M. Dehler, R. Kramert, P. Pollet, T. Schilcher, D. Bulfone, M. Lonza, *Commissioning Results of the Multi Bunch Feedback System at SLS*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

R. Dölling, Profile, *Current and Halo Monitors of the PROSCAN Beam Lines*, BIW 2004, Knoxville, Tennessee, USA, May 3-6, 2004.

P.A. Duperrex, U. Frei, G. Gamma, U. Müller L. Rezzonico, *Latest Diagnostic Electronics Development for the PROSCAN Proton Accelerator*, Proc. BIW 2004, Knoxville, Tennessee, USA, May 3-6, 2004.

J. Duppich, R. Dölling, P.A. Duperrex, G. Goitein, M. Jermann, T. Korhonen, M. Lüthy, A. Mezger, E. Pedroni, H. Reist, J.M. Schippers, P. Sigg, L. Stingelin, V. Vrankovic, C. Zumbach and the PROSCAN team, *Status of the PROSCAN project at the Paul Scherrer Institute (PSI)*, Proc. PTCOG 40, Paris, France, June 16-18, 2004.

K. Dreyer, *Calibration of BPMs at SLS Frontends using a Measurement Projector*, Proc. IWAA2004, CERN, Geneva, Switzerland.

R. Ganter, A. Candel, M. Dehler, J. Gobrecht, C. Gough, S. Leemann, K. Li, M. Paraliev, M. Pedrozzi, J.-Y. Raguin, L. Rivkin, V. Schlott, A. Streun, A. Wrulich, *Preliminary Results on a Low Emittance Gun Based on Field Emission*, Proc. EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

R. Ganter, A. Candel, M. Dehler, J. Gobrecht, C. Gough, G. Ingold, S. Leemann, K. Li, M. Paraliev, M. Pedrozzi, J.-Y. Raguin, L. Rivkin, V. Schlott, A. Streun, A. Wrulich, *Ultra Low Emittance Electron Gun Project for FEL Application*, LINAC. 2004, Lübeck, Germany, August 16-20, 2004.

R. Ganter, A. Candel, M. Dehler, J. Gobrecht, C. Gough, G. Ingold, S. Leemann, K. Li, M. Paraliev, M. Pedrozzi, J.-Y. Raguin, L. Rivkin, H. Sehr, V. Schlott, A. Streun, A. Wrulich, S. Zelenika, *Low Emittance Gun Project Based on Field Emission*, FEL 2004, Trieste, Italy, August 29 - September 3, 2004.

R. Geus, P. Arbenz, M. Becka, U. Hetmaniuk, *A Parallel Eigensolver for Electromagnetic Fields in Cavities*, CERN Accelerator School 2004, Baden bei Wien, Austria, September 18, 2004.

B. Kalantari, T. Korhonen, A. Lüdeke, Ch. Quitmann, *Enhancements of Top-up Operation at the Swiss Light Source*, Proc. EPAC'04, Lucerne, Switzerland, 5-9, 2004.

B. Kalantari, V. Schlott, T. Korhonen, *Bunch Pattern Control in Top-up Mode at the Swiss Light Source*, Proc. EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

B. Kalantari, T. Korhonen, *Timekeeping Mechanism at SLS/APS Control System*, Proc. EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

B. Keil, K. Wille, *The DSP-based Betatron Tune Feedback of the Ramped 1.5 GeV Electron Storage Ring BoDo*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

B. Keil, K. Wille, *A DSP-Based Fast Orbit Feedback System for the Synchrotron Light Source DELTA*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

B. Keil, C. Buehler, P.-A. Duperrex, U. Greuter, R. Kramert, P. Pollet, V. Schlott, N. Schlumpf, P. Spuhler, *The Generic VME PMC Carrier Board: A Common Digital Hardware Platform for Beam Diagnostics and Feedbacks at PSI*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

J. Krempasky, M. Böge, T. Schilcher, V. Schlott, T. Schmidt, *The Use of Photon Monitors at the Swiss Light Source*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

K. Li, M. Dehler, R. Ganter, J. Gobrecht, J.-Y. Raguin, L. Rivkin, A. Wrulich, *Field Emitter Arrays for a Free Electron Laser Application*, Proc. FEL 2004, Trieste, Italy, August 29 - September 3, 2004.

A. Lüdeke, *Operation of the Swiss Light Source: Top-up for Highest Performance*, EPAC'04, Lucerne, Switzerland, 5.-9. July 2004.

M. Pedrozzi, G. Ingold, *Extended Parametric Evaluation for 1 Å FEL - Emittance and Current Requirements*, Proc. LINAC 2004, Lübeck, Germany, 395 (2004).

J.-Y. Raguin, A. Adelmann, M. Bopp, H. Fitze, M. Pedrozzi, P. Schmelzbach, P. Sigg, *Comparative Design Studies of a Super Buncher for the 72 MeV Injection Line of the PSI Main*, Proc. EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

S. Redaelli, R.W. Assmann, W. Coosemans (CERN), M. Böge, M. Dehler, L. Rivkin, *Vibration Measurements at the Swiss Light Source (SLS)*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

T. Schilcher, M. Böge, B. Keil, P. Pollet, V. Schlott, *Commissioning and Operation of the SLS Fast Orbit Feedback*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

V. Schlott, M. Dach, Ch. David, B. Kalantari, M. Pedrozzi, A. Streun, *Using Visible Synchrotron Radiation at the SLS Diagnostics Beamline*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

L. Stingelin, J. Cherix, H. Fitze, M. Humbel, G. Rudolf, K. Ko, C. Ng, *Beam-Cavity Interaction Simulation for the PSI Ring-Cyclotron*, Cyclotrons 2004, Tokyo, Japan, October 18-22, 2004.

P. van Luijk, H. Faber, H.H. Kampinga, H. Meertens, J.M. Schippers, R.P. Copes, *Dose-volume-region effects in the rat lung*, ESTRO 23, Amsterdam, October 24-28, 2004.

A. Winter, M. Tonutti, S. Casalbuoni, P. Schmüser, S. Simrock, B. Steffen, T. Korhonen, T. Schilcher, V. Schlott, H. Sigg, D. Suetterlin, *Bunch Length Measurements at the SLS LINAC Using Electro-Optical Techniques*, EPAC'04, Lucerne, Switzerland, July 5-9, 2004.

M. Wohlmuther, J. Zuellig, *Activation calculation for the target of a spallation ultacold neutron source at PSI*, Proc.of ICRS-10 RPS 2004, Madeira, Portugal, May 9-14, 2004.

CONFERENCES & WORKSHOPS

A. Adelmann, R.D. Ryne (LBNL)
MS35: Parallel Computational Methods in Accelerator Physics
SIAM Conference on Parallel Processing for Scientific Computing (PP04)
Miniworkshop
San Francisco, USA
February 25-27, 2004

M. Böge
3rd Int. Workshop on Beam Orbit Stabilization (IWBS 2004)
Grindelwald, Switzerland
December 6-10, 2004

V. Schlott
Workshop on Beam Stability at SLS
PSI Villigen, Switzerland
September 9, 2004

P. Sigg
3rd CW and High Average Power RF Systems Users Group Meeting, PSI, Villigen, Switzerland April 5-7, 2004

9th European Particle Accelerator Conference (EPAC)
Lucerne, Switzerland
July 5-9, 2004

Local Organizing Committee:
H.-A. Synal, A. Adelmann, M. Bugmann, J. Chrin, Ph. Dietrich, M. Heiniger, Ch. Petit-Jean-Genaz, J. Poole, L. Rivkin, D. Vermeulen, A. Wrulich

TEACHING

A. Adelmann
Statistics and Probability Theory
University of Applied Science Zurich
WS 2004/2005

M. Böge
Invited Participation in SPEAR3 Commissioning
SSRL/SLAC, Menlo Park, USA
January 26-31, 2004

J. Cherix
Elektronik
Technikerschule TS, Zürich
WS / SS 2004

H. Fitze
Hochfrequenztechnik
Hochschule für Technik, Zürich
SS 2004

H. Fitze
Technische Informatik
Hochschule für Technik, Zürich
WS 2004

S.C. Leemann
Exercise Course: Introduction to Particle Accelerator Physics
EPFL Lausanne
WS 2004/2005

L. Rivkin
Synchrotron Radiation
ICTP School on Synchrotron Radiation and Applications, Trieste, Italy
April 20-22, 2004

L. Rivkin
Synchrotron Radiation and Electron Dynamics with Damping
CERN Accelerator School, Baden, Austria
September 12-24, 2005

L. Rivkin, J. Ulbricht
Teilchenbeschleuniger und Detektoren der Hochenergiephysik
 ETH Zürich
 WS 2004/2005

J.M. Schippers
Supervision of Diploma Theses
 Students Technische Physik
 Saxion Fach-Hochschule, Enschede, The Netherlands
 Semester 6 and 8

P. Sigg
Referee for Diploma Theses
 Elektrotechnik & Informatik, Fachhochschule Aargau (FHA), 2004

A.F. Wirllich
Synchrotron Light Sources
 CERN Accelerator School, Baden, Austria
 September 12-24, 2005

MEMBERSHIP IN EXTERNAL COMMITTEES

A. Adelmann

- ECLOUD 04, Program Committee
- CSCS "Horizon Project" Steering Committee
- Expert for Mathematics "Maturitaets Exams"
- IPDPS 2004 PROGRAM COMMITTEE.

M. Böge

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

M. Dehler

- "Ultra-Cold Electron Bunches" project at TU Eindhoven/NL, Scientific Advisory Committee

A.C. Mezger

- Int. Scientific Advisory Committee for the Int. Control System Conferences (ICALEPCS)

T. Pal

- Journal of Systemics, Cybernetics and Informatics, ISSN: 1690-4524, Reviewer
- Int. Conference on Computing, Communications and Control Technologies, University of Texas, Austin, TX USA, August 2004, Reviewer

L. Rivkin

- CERN Accelerator School, Advisory Committee
- DESY, Machine Advisory Committee, Germany
- European Physical Society, Accelerators Group (Chairman of the Board)
- Joint Universities Accelerator School, Program Committee
- PAC2005, Organizing Committee
- Physical Review Special Topics - Accelerator and Beams (PRST-AB), Editorial Board Member
- SOLEIL Machine Advisory Committee (Chairman)

W. Roser

- Swiss Society for Radiation Biology and Medical Physics, Board Member
- Schweiz. Elektrotechnisches Komitee, Technisches Komitee 62

P. Sigg

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

V. Schlott

- DIPAC'2005, Scientific Programme Committee
- DIAMOND Light Source, Technical Advisory Committee
- ALBA Spanish Light Source, Machine Advisory Committee
- Scientific and Technical Working Group for the European XFEL (XFEL-STI)
- Chairman of the EuroFEL Advisory Board
- CARE Governing Board

P.A. Schmelzbach

- Int. Conferences on Cyclotrons and their Applications, Advisory Committee
- European Cyclotron Progress Meetings, Advisory Committee
- Cyclotrons 2004, Int. Program Committee
- Workshop on Physics with a Multi-MW Proton Source, CERN 2004, Program Committee

A.F. Wirllich

- ASTeC Board, Accelerator Science and Technology Centre of CCLRC, UK.
- Australian Synchrotron, Int. Advisory Board, Australia
- BESSY II, Scientific Advisory Committee, Germany
- CNAO (Centro Nazionale Adroterapia Oncologica), Advisory Board, Italy
- DESY, Scientific Council, Germany
- DESY, Machine Advisory Committee, Germany
- DIAMOND, Technical Advisory Committee (Chairman), UK
- ELETTRA, Machine Advisory Committee (Chairman), Sincrotrone Trieste, Italy
- 'Journal of Synchrotron Radiation', Co-Editor
- LHC Cost & Schedule Committee
- SESAME, Technical Advisory Committee (Chairman), Jordan

AWARDS

P.A. Duperrex

"A market analysis for a PSI development: the microstrip x-ray detector" from the iimt alumni network 2nd Price for the best Management Summary of the Master's Project, University of Fribourg, Switzerland