PS DIVISION REPORTS

January - December, 1987

CERN/PS 87-01 (AA) Plasma Dynamics in a Z-Pinch Particle Lens (Paper published in the Journal of Applied Physics.)

CERN/PS 87-02 (OP) Statistics of PS Operation.

CERN/PS 87-03 (PSR) Kaon Factories seen from the CERN PS. (Invited paper at the International Workshop on Hadron Facility Technology, Santa Fé, USA, February 1987.)

CERN/PS 87-04 (AA) Principles and Limitations of Antiproton Rings (Lecture presented at the VIIIth European Symposium on Nucleon-Antinucleon Interactions, Thessaloniki, Greece, 1-5.9.1986).

CERN/PS 87-05 (RF) A Preliminary Study of a Voltage Multiplying Structure for Electron Acceleration

CERN/PS 87-06 (LEA) Application of Symbolic Computation to the Search of Complicated Primitives; the Example of the 'Betatron' Integrals. (Paper to be published in the Journal of Symbolic Computation.)

CERN/PS 87-07 (AA) Workshop on ACOL Plasma Lens. (Held at CERN on 17th and 18th September 1986.)


CERN/PS 87-09 (BT) A 1.5 GHz Wide-Band Beam Position and Intensity Monitor for the Electron-Positron Accumulator.

CERN/PS 87-10 (DL) PS Division Reports, September-December 1986.

CERN/PS 87-11 (PSR) The CERN PS as e+/e- Accelerator in the LEP Injector Chain: First Results. (Paper submitted to the 1987 IEEE Particle Accelerator Conference Washington, USA, 16-19.3.1987.)
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CERN/PS 87-12 (LEA) Measurement of $H^+$ Intra-Beam Stripping Cross-Section by Observing a Stored Beam in LEAR. (Submitted to Physics Letters.)
M. Chanel, R. Giannini, P. Lefèvre, R. Ley, D. Manglunki, D. Möhl

CERN/PS 87-13 (AA) Antiproton - Positive Ion Transverse Instabilities in the CERN Antiproton Accumulator. A Tune Modulated Direct Map Simulation.
A. Dainelli

B. Kuiper

B.J. Evans, R. Garoby, R. Hohbach, G. Nassibian, P. Marchand, S. Talas

Staff of PS & SPS Divisions (Written by E. Brouzet & W.C. Middelkoop)


CERN/PS 87-18 (CO/LPI) On-Line Modelling, a Tool at Commissioning of the 600 MEV $e^+ e^-$ Accumulator (EPA) of LEP. (Paper submitted to the 1987 IEEE Particle Accelerator Conference, Washington, USA, 16-19.3.1987.)
J.P. Delahaye, H. Kugler, A. Lévy-Mandel, F. Perriollat, J.P. Potier

C.D. Johnson, E. Jones, T.R. Sherwood

F. Caspers

P. Krejčík

M. Battiaz, M. Harold, H.H. Umstatter


The Program Line Sequencer, a New Approach.
(Paper submitted to the 1987 IEEE Particle Accelerator Conference, Washington, 16-19.3.87.)


First Experience with the LEP Pre-Injector (LPI), by the LPI Beam Commissioning Team (Paper presented at the 1987 IEEE Particle Accelerator Conference, Washington, USA, 16-19.3.1987.)


EPA Initial Vacuum Performance and Beam Lifetime with Electrons.

Beam Instrumentation in the LEP Pre-Injector (Paper submitted to the 1987 IEEE Particle Accelerator Conference, Washington, 16-19.3.87.)


CERN/PS 87-46 (LI)  Particle Production for Accelerators. [Seminar held at the CERN Accelerator School, Aarhus, Denmark, 15-25.9.1987.]

CERN/PS 87-47 (AA)  Système de visualisation de faisceaux de particules.

CERN/PS 87-48 (PSR)  Beam Dynamics Measurements with a "Local Intelligent Device".

CERN/PS 87-49 (AA)  Plasma Lenses for Focusing Particle Beams. [Lecture given at the Workshop on New Development in Particle Acceleration Techniques, Orsay, France, 29.6.-4.7.1987.]

CERN/PS 87-50 (SC)  On-line Mass Separators. (To be published in "Treatise on Heavy-Ion Science", Editor D.A. Bromley, Plenum Press, New York.)

CERN/PS 87-51 (LI)  Radio-frequency Quadrupole. [Seminar given at the 2nd General Accelerator Physics Course, (CAS), Aarhus, Denmark, 16-26.9.1987.]


CERN/PS 87-53 (DL)  Quantum Beamstrahlung.

CERN/PS 87-54 (CO)  An Expert System Project in the Accelerator Domain.

CERN/PS 87-55 (EA)  Renewal of the PS Controlled Access System.

CERN/PS 87-56 (LI)  RFQ Field Stabilization.

CERN/PS 87-57 (AA)  A study of the Feasibility of an Open Resonator as a Device for Focusing a Bunched Beam. (Lecture given at the Workshop on New Development in Particle Acceleration Techniques, Orsay, France, 29.6-4.7.1987.)

CERN/PS 87-58 (AA)  Applications of Microwaves to Antiproton Control. (Invited paper, 17th European Microwave Conference, Rome, Italy, 7-10.9.87.)

CERN/PS 87-59 (AA)  Microwave Power Amplifiers for the ACOL Stochastic Cooling Systems at CERN. (Paper submitted for publication in Mikrowellen Magazin, Sprechsal Verlag, Coburg.)

CERN/PS 87-60 (PO)  The DC Power Supplies [3000 A, 40 V] of the Septum Magnets for Particle Injection into the Electron and Positron Accumulator.
CERN/PS 87-61 (AA) Ferroelectrics and their Possible Use in Accelerator Physics. (Lecture given at the Workshop on New Development in Particle Acceleration Techniques, Orsay, France, 29.6-4.7.87.)

K. Zioutas

CERN/PS 87-62 (AA) Accelerators for the Future. (Invited talk given at the 7th General Conference of the European Physical Society, Helsinki, Aug.87.)

S. van der Meer


E. Boggash F. Dothan K. Frank H. Riege

CERN/PS 87-64 (LI) Feasibility Studies for the Switched Power Linac. J. Knott


R. Alves-Pires


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M. Bourgeois M. Brouet M. Chanel A. Poncet

CERN/PS 87-70 (AA) Beam Dimensions and Beam Potential in the CERN Antiproton Accumulator Complex.

R. Alves-Pires

CERN/PS 87-71 (PSR) Analysis of the Optics of the Fast Proton and pbar Ejections from ss 16 and 58 at the CERN PS and Proposed Improvements.

T. Risselada

CERN/PS 87-72 (LPI) The Synchrotron Radiation Measurements in EPA.

S. Battisti

CERN/PS 87-73 (AA) A Study of Tolerances for Low Emittance Damping Rings. (Lecture given at the Workshop on New Development in Particle Acceleration Techniques, Orsay, France, 29.6-4.7.87.)

P. Krejcik

CERN/PS 87-74 (LEA) Some Comments on the Equations of Motion for a particle in an External Electromagnetic Field.

J. Bengtsson


D. Möhl


S. Baird J. Bengtsson M. Chanel R. Giannini P. Lefèvre D. Möhl


CERN/PS 87-79 (OP) Closed Orbit Correction in the AA Complex. M. Martini L. Rinolfi


CERN/PS 87-82 (CO) Low Cost CAMAC Control Systems used for Auxiliary Controls in the CERN PS Complex. (Paper presented at the Europhysics Conference on Control Systems for Experimental Physics, Villars-sur-Ollon, Switzerland, 28.9-2.10.87.)

CERN/PS 87-83 (CO) Status and Evolution of the Centralized Maintenance Service related to the Concurrent Control of the Accelerators of the PS complex. (Paper presented at the Europhysics Conference on Control Systems for Experimental Physics, Villars-sur-Ollon, Switzerland, 28.9-2.10.87.)


CERN/PS 87-86 (RF) A Voltage Multiplying RF Structure for Electron Acceleration.

CERN/PS 87-87 (OP) Special Injection Region Quadrupole for the CERN Antiproton Collector Ring. (Paper presented at the Xth International Conference on Magnet Technology, Boston, Massachusetts, USA, 23-26.9.1987.)

CERN/PS 87-89 (PSR) Tune Shifts and Stop Bands at Injection in the CERN Proton Synchrotron.

CERN/PS 87-90 (PSR) An Improved Version of the Orbit Correction Program ORBCOR.

CERN/PS 87-91 (AA) Calculations of the Pinch Dynamics in the Plasma Lens by One-Dimensional Magnetohydrodynamic 2-pinch Models.

CERN/PS 87-92 (AA) A Cold Cathode for very High Power Applications.

CERN/PS 87-93 (AA) Initial Performance of AAC. (Paper presented at the IVth LEAR Workshop, Villars-sur-Ollon, Switzerland, 6-13.9.87.)


CERN/PS 87-95 (AA) Present and Future Possibilities of Antiproton Production from Fixed Targets at CERN. (Paper presented at the Symposium on the Production and Investigation of Atomic Antimatter, Karlsruhe, Germany, 30.11-2.12.87.)

CERN/PS 87-96 (AA) High Power Hollow Electrode Thyatron-Type Switches. (Paper presented at the IEEE Pulsed Power Conference, Washington, USA, 29.6-1.7.87.)

CERN/PS 87-97 (AA) Symbolic Evaluation of Integrals occurring in Accelerator Orbit Theory.

CERN/PS 87-98 (AA) CLIC : Problems and Perspectives. (Invited talk given at the Symposium dedicated to Professor Conversi, Rome, November 1987.)


CERN/PS 87-100 (AA) The AA Cerenkov Microwave Pick-up Prototype: Experimental Results and their Interpretation.


CERN/PS 87-106 (LEA) Status and Recent Developments in Electron Cooling. (Paper presented at the IVth LEAR Workshop, Villars, Switzerland, 6-13.9.1987.)


