

CURRICULUM VITAE ET STUDIORUM

Personal Information

Name: Dr. Klaus Hanke
Date of birth: January 23, 1968
Place of birth: Bonn/Germany
Nationality: German
Family status: Married, 2 children
Work address: CERN
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Education

1978-1987: Gymnasium am Petersberg, Königswinter, Germany
06/1987: Abitur
07/1987-09/1988: Military service
10/1988-08/1994: Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen, Germany
05/1993-11/1993: Technical Student, CERN, Geneva, Switzerland
Thesis topic: Measurement of the Bunch Length of LEP and Comparison with Results from LEP Experiments
Thesis director: Prof.Dr.Manfred Tonutti
08/1994: Diplom-Physiker, "*sehr gut*"
10/1994-12/1997: Graduate Student, Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany
Thesis topic: Measurement of Picosecond Electron Bunches in a Linear Accelerator
Thesis director: Prof.Dr.Peter Schmüser
12/1997: Doktor der Naturwissenschaften, "*sehr gut*"

Work Experience

- 1991-1993:** Student employee, physics institute, RWTH Aachen
- Supervision of undergraduate students
- 05/1993-11/1993:** Technical Student, CERN, Geneva, Switzerland
Member of the LEP beam instrumentation group
- Responsible for LEP bunch length monitor, participation in LEP operation and machine studies
- 10/1994-12/1997:** Graduate Student, Deutsches Elektronen-Synchrotron DESY, Hamburg, Germany
- Setting-up of the TESLA test facility (TTF) linac from scratch
 - Commissioning and operation of the linac
 - Development of innovative beam diagnostics
 - Contributions to various TESLA and FEL related projects
- 01/1998-08/1999:** Fellow at CERN, Geneva, Switzerland
SPS-LEP (SL) division, operations (OP) group
- Optics modeling and matching of the SPS injection line
 - Development of orthogonal knobs for on-line mismatch correction
- 09/1999-12/2002:** Staff accelerator physicist, CERN, Geneva, Switzerland
Proton Synchrotron (PS) division, Particle Production (PP) group
- Beam dynamics calculations for CERN proton and ion sources, injector linacs and transfer lines
 - Experimental and theoretical work for the CERN laser ion source project
 - Modeling of ion dynamics for extraction from the source low-energy beam transport
 - Design of a radio-frequency quadrupole (RFQ)
 - Beam dynamics for the front-end of a neutrino factory (muon cooling channel, muon cooling experiment "MICE")
 - Operation of the CERN hadron linacs as machine supervisor
- 01.01.2003:** Accelerator and Beams (AB) department, operations (OP) group
Operation of the CERN PS Booster as machine supervisor:
- Contributions to various machine studies
 - Administrative tasks in the OP group
 - Responsibility for various projects (Booster injection line matching, fast wire scanners, machine upgrade and consolidation)
- Participation in the Linac4/SPL study:
- Member of Linac4 project management team
 - Chairman of Linac4 diagnostics working group
 - Chairman of Linac4-PSB commissioning working group
 - Participation in various committees and Linac4/SPL related activities (data base, DTL beam dynamics, installation and infrastructure issues)
- As of 01.01.2006:** As section leader of the AB/OP/PSB section in charge of operation of the PS Booster, supervision of a team of 7 technicians.
- As of 01.04.2007:** Overall responsibility for operation of the PS Booster and the ISOLDE facility at CERN, including supervision of a team of 11 technicians and 3 physicists;
As of 2009 chairman of the Facilities Operations Meeting; coordinator for the operation of the complete non-LHC accelerator complex;
As of 2010 study leader for energy upgrade of the CERN PS Booster, now project leader for the upgrade of the PS Booster

Other Information

Languages: German (mother tongue), English, French and Swedish spoken and written fluently

Software: operation systems: UNIX, Linux, Microsoft Windows
simulation codes: MAD, TRACE-3D, TRACEWIN, PATH, LANL RFQ codes, TOUTATIS, KOBRA, Superfish-Poisson
data analysis: Matlab, Mathematica
text and office work: LaTeX, MS office
data bases: EDMS

Training: CERN Accelerator School on Superconductivity in Particle Accelerators, Hamburg, Germany, 1995
CERN Intermediate Accelerator School, Sevilla, Spain, 2001
Joint US/CERN/Japan Accelerator School on Linac, Long Beach, USA, 2002

Other: Lathe, Mill, typewriter

Hobbies: Sports (running and cross-country skiing at competition level, hiking, cycling, diving), languages, history