

Resume - Andreas Adelmann

Education

- 2002 **Ph.D in applied Mathematics (Dr. sc. math)**, Prof. R. Jeltsch and R. Eichler ETHZ.
- 1997 **M.S Theoretical Computer Science and Particle Physics (dipl.inf.nat)**, University Fribourg.
- 1990 **B.S Computational Science and Engineering (dipl. Ingenieur HTL)**, University of Applied Science Zurich.

Ph.D thesis

- title *3D Simulations of Space Charge Effects in Particle Beams.*
- supervisors Prof. R. Jeltsch and R. Eichler ETHZ/PSI.

Professional Positions Held

- 2003 until present **Staff scientist at PSI**, Research interests includes accelerator theory with focus on numerical and parallel / computational methods. In 2007 I became head of the Accelerator Modeling and Advanced Simulations (AMAS) group.
- 2004 until present **Expert for Mathematics "Maturitaets Exams"**.
- 2002-2003 **First Alvarez Postdoctoral Fellow**, Lawrence Berkeley National Laboratory.
- 1997-2001 **Ph.D at the Seminar for Applied Mathematics (SAM) & PSI**.
- 1996-1997 **Undergraduate teaching assistant for algorithms and datastructures**, Dr. T. Huerlimann and Prof. Dr. J. Kohlas, University Fribourg.
- 1990 until present **Lecturer for: technical computer science, statistics and probability theory and supervisor for diploma theses**, University of Applied Science Zurich.
- 1993 - 1997 **Leader of the Unix group**, University of Applied Science Zurich.

Honors

- 2002 **First Alvarez Postdoctoral Fellowship in Computational Science**, Lawrence Berkeley National Laboratory.
<http://www.nersc.gov/news/newsroom/adelmann052902.php>
- 1990 **Best diploma thesis**, University of Applied Science Zurich.
- 1990 **Best exam (written and oral)**, University of Applied Science Zurich.

Teaching

- 2009 **Parallel Numerical Computing**, *ETHZ*, together with Prof. P. Arbenz & W. Petersen.
- 2005 until present **Supervising bachelor and master thesis**, *ETHZ*, together with Prof. P. Arbenz.
- 1990 until present **Lecturer for: technical computer science, statistics and probability theory and supervisor for diploma thesis**, *University of Applied Science Zurich*.

Ph.D Students (work in progress)

M. Wittberger

- title *A Self Consistent Particle-In-Cell Finite-Element-Time-Domain Solver for Large Accelerator Structures.*
- start 2006
- supervisors Prof. P. Arbenz (ETHZ) and A. Adelman (PSI).

Ch. Kraus

- title *A Self Consistent Particle-In-Cell Time-Domain Solver Incorporating Radiative Losses and Interaction.*
- start 2007
- supervisors Prof. P. Arbenz (ETHZ) and A. Adelman (PSI).

Y. Ineichen

- title *Multi Objective Optimisation of the 250 MeV Injector.*
- start 2009
- supervisors Prof. P. Arbenz (ETHZ) and A. Adelman (PSI).

C. Wang

- title *Multipacting in large resonators.*
- start 2010
- supervisors Prof. T. Chuanxiang, Tsinghua University, Beijing & T. Zhang , China Institute of Atomic Energy, Beijing and A. Adelman (PSI).

Y. Bi

- title *Study on beam loss and radiation fields in high intensity cyclotrons.*
- start 2007-2011
- supervisors Prof. T. Chuanxiang, Tsinghua University, Beijing & T. Zhang , China Institute of Atomic Energy, Beijing and A. Adelman (PSI).

J. J. Yang

title *Quasi-static Modeling of space charge effects in high intensity cyclotrons and beam lines.*
start 2006 - 2009
supervisors Prof. T. Chuanxiang, Tsinghua University, Beijing & T. Zhang , China Institute of Atomic Energy, Beijing and A. Adelman (PSI).

Conference Organisation

- Co-Organizer: Workshop on High-Performance Computing http://www.speedup.ch/workshops/w38_2009.html
- Co-Organizer: HB2010 <http://hb2010.web.psi.ch/>

Reviewing Tasks

- Schweizerischer Nationalfonds (SNF)
- Bundesministerium für Bildung und Forschung (BMBF) Deutschland HPC-Software für skalierbare Parallelrechner
- Office of Advanced Scientific Computing Research(US): Innovative and Novel Computational Impact on Theory and Experimentation (INCITE)
- Phys. Rev. ST Accel. Beams
- Phys. Rev. Letters

Memberships

- Society for Industrial and Applied Mathematics (SIAM)
- Swiss Mathematical Society
- Swiss Academy of Science (SCNAT)
- Speedup Society (treasury)
- CSCS "Rosa (Horizon) Project" Steering Committee
- Program Committee ICFA High Brightness Beam Dynamics Workshop
- International Super Computing Conference (ISC), Program Committee
- PSI ICT Governance Board - Information and Communication Technology Governance Board