

Curriculum Vitae

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Scientist II, Fermilab

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Education

1986 - 1991 Ph.D. at the University of Heidelberg (Dr. rer. nat., magna cum laude)

1979 - 1986 M.S. at the University of Bonn (Diploma in Physics).

Positions held

2007 - present: Scientist II at the Fermi National Accelerator Laboratory.

2001 - 2007: Scientist I at the Fermi National Accelerator Laboratory.

1997 - 2001: Wilson Fellow at the Fermi National Accelerator Laboratory.

1995 - 1997: Senior Research Associate at the University of Rochester.

1992 - 1995: Research Associate at the University of Rochester.

1990 - 1991: Research Associate at the IHEP Heidelberg.

1986 - 1990: Research Assistant (“wissenschaftlicher Mitarbeiter”) at the IHEP Heidelberg.

Research Summary

at Fermilab (1997-present):

Research in high energy particle physics, in particular:

- Responsible for DZero running and data taking as Run Coordinator
- Leader of the DZero Central Track Trigger (CTT) group
- Institutional Board representative for the Fermilab group in DZero
- Member of Editorial Board 32 "Model-Independent Searches for New Physics"
- Continuing support of embedded VLPC temperature control

in Rochester and at Fermilab (1992-1997):

- R&D for and construction of the Dzero fiber tracker; including:
 - Development of the fiber ribbon building technique for the scintillating fiber tracker;
 - organization and supervision of fiber ribbon production for the first 3000 channel test system.
 - R&D on cryogenic semiconductor detectors (VLPCs); planning and implementation of small and intermediate scale test systems, supervision of technicians, programmers and students; demonstration of feasibility for HEP
 - Organization and operation of a DAQ system for a relatively large cosmic ray test experiment
 - Construction of a test system for VLPC device testing at the manufacturer.
 - Readout electronics development for the scintillating fiber tracker, including design of On-board (AFE) VLPC temperature control.
- Physics analysis of QCD with W/Z + jets,
- Analysis of top production with studies of b-tagging issues, studies of MC generation of QCD background.
- Various Dzero editorial boards (W plus jets; dijet decorrelation)
- Dzero top physics advisory committee: planning for Run II

in Heidelberg and at CERN (1986-1991):

- Design and construction of the UA2 time-of-flight system

- Design and layout of fast detector-mounted discriminator electronics
- Planning and running of a CERN PS test beam experiment for the TOF system
- Running of the UA2 experiment, with responsibility for the TOF system
- Analysis work for top search
- Analysis of data for a W'/Z' search (thesis topic)
- Teaching: lab classes for physicists and non-physicists, edition of lab manual for medical students

in Bonn (1984-1986):

- Physics simulation package for the SAPHIR detector (from kinematics generators to GEANT detector geometry)
- Software package for vertex reconstruction (thesis topic)
- Design studies for the SAPHIR e^+e^- veto counters