

Scientific career

University	Diploma in Physics, Univ. Tübingen Diploma thesis in atomic physics: Measurement of the momentum distribution of K-shell electrons in silver	1982-1988
PhD	Dr. rer. nat. Univ. Heidelberg ALEPH experiment at the Large Electron Positron Collider LEP at the European center of particle physics CERN in Geneva. Installation, optimization and analysis of the ALEPH event trigger and investigation of muonic decays of tau leptons.	1989-1992
Post-Doc	Post-doc and Univ. Assistant, Univ. of Bonn, R&D for the forward detector of a tau-charm factory. Installation of a working group on tau lepton physics with the OPAL experiment at LEP.	1992-2001
	Feodor-Lynen fellow: Construction of the modules of the calorimeter of the BaBar experiment.	1996-1998
	Scientific associate at CERN, OPAL Tau lepton physics with the OPAL experiment	1999-2000
Senior Scientist	Leading Scientist, DESY Zeuthen Head of the TESLA linear collider working group	2001-2004
Current position	Professor, RWTH Aachen Main activity: the CMS experiment at the Large Hadron Collider LHC at CERN. Construction of the silicon tracker endcaps, operation of a Tier-2 station in the worldwide LHC computing grid, data analysis with tau leptons and top quarks, preparation for the LHC upgrade. Further activities: Neutrino physics, search for the mixing angle θ_{13} with the Double Chooz and T2K experiments. R&D for a future beta-beam experiment.	2004- now

Field of Research: Experimental Particle Physics. Worked on experiments at CERN (ALEPH and OPAL), DESY (TESLA) and SLAC (BABAR and E166). Now involved in CMS (CERN), DoubleChooz (reactor neutrino exp. in France) and T2K (long-baseline neutrino exp. in Japan). Data analysis focused on tau-leptons. Design, development, and construction of trigger electronics (ALEPH, DoubleChooz), electromagnetic calorimeters (BABAR, TESLA, E166), and tracking detectors (CMS, T2K). Responsible for the Tier-2/Tier-3 GRID stations in Aachen.

Five relevant publications

- 1) A. Stahl, *"Physics with tau Leptons"*, Springer Tracts in Modern Physics, Vol. 160, 1999.
- 2) Particle Data Group (W.-M. Yao et al.), *"Review of Particle Physics"*, J.Phys.G33:1-1232, 2006.
- 3) Gudrid A. Moortgat-Pick et al. *"The Role of polarized positrons and electrons in revealing fundamental interactions at the linear collider"*, submitted to Physics Reports.
- 4) OPAL Collaboration (K. Ackerstaff et al.). *"Search for CP violation in $Z^0 \rightarrow \tau^+ \tau^-$ and an upper limit on the weak dipole moment of the tau lepton"*, Z.Phys.C74:403-412,1997.
- 5) OPAL Collaboration (G. Abbiendi et al.), *"Measurement of the strange spectral function in hadronic tau decays"* Eur.Phys.J.C35:437-455, 2004.