

# Curriculum Vitae

**Prof. Dr. Karl Jakobs**

## Scientific Career:

- Dec. 1984: Diploma in Physics, Bonn University
- June 1988: PhD in Physics, University of Heidelberg, UA2 experiment at CERN
- 1988 – 1991: Fellow and staff member at the European Centre for Particle Physics, CERN, UA2 experiment
- 1991 – 1996: Scientific staff member at the *Max-Planck-Institut für Physik* in Munich
- 1996 - 2003: Professor (C3, Associate Professor) of Experimental Particle Physics at the University of Mainz
- Since April 2003: Professor (C4, Full Professor) of Experimental Particle Physics at the University of Freiburg

## Major current research activities:

- Data analysis in the ATLAS experiment at the LHC (Measurement of Higgs boson parameters, Search for supersymmetric particles, Study of Standard Model processes)
- Research and development for radiation hard silicon detectors (RD50 Collaboration)
- Research and development for the construction of the upgraded silicon tracking detector for the ATLAS experiment at the High Luminosity LHC

## Major completed research activities:

- UA2 Experiment, (1988 – 1992) Investigation of QCD effects in W production
- ALEPH Experiment, (1992 – 2000) Search for  $B^0_s$  oscillations (LEP-I, 1993 – 1995) and for supersymmetric particles (1996 – 2000)
- ATLAS Experiment, (since 1992) Detector development, Liquid argon calorimeter (at MPI Munich and in Mainz) and silicon tracking detectors (in Freiburg)
- Significant contribution to the construction of the ATLAS SemiConducting Tracking detector (SCT) (Freiburg)

- DØ Experiment at Fermilab/Chicago (2001 – 2007),  
Search for the Higgs boson and for supersymmetric particles
- ATLAS Experiment, Search and discovery of the Higgs boson (2012)

### Physics Committee Involvements

- 1994 – 1998: Member of the CERN SPS Programme Committee
- 1997 – 2003: Member of the DESY Programme Review Committee (PRC)
- 1998 - 2004: Member of the European Committee for Future Accelerators (ECFA)
- 2005 - 2008: Member of the US Particle Physics Project Prioritization Panel P5  
(European Representative)
- 2006 - 2012: Member of the Programme Review Committee (*Gutachterausschuss*) of the  
German Funding Agency (BMBF)  
(Chairman of the committee from 2009 – 2012)
- 2006 – 2012: Member of the Board of German Particle Physics, KET  
(*Komitee für Elementarteilchenphysik*)
- 2006 – 2012: Elected Member of the Advisory Board (*Vorstandsrat*) of the German Physical  
Society (DPG)
- 2008 – 2013: Member of the Board of Trustees (*Kuratoriumsmitglied*) of *Physik Journal*  
(DPG)
- Since 2009: Member in international scientific review committees of various institutes  
(LAPP Annecy, CERN, IFAE Barcelona, INP Grenoble, ANVUR Italy,  
*DoE review committee, ...*)
- Since 2012: Member of the High Energy Particle Physics Board of the European Physical  
Society
- Since 2015: Member of the Scientific Council (*Wissenschaftlicher Rat*) of DESY  
(Hamburg and Berlin/Zeuthen)
- Since 2015: Member of the CERN Scientific Policy Committee (SPC)

## Spokesperson roles for research activities in Germany

- 2001 – 2003: Spokesperson of the DFG-Research Training Group “*Eichtheorien, experimentelle Tests und theoretische Grundlagen*“ at the University of Mainz
- 2005 - 2014: Spokesperson of the DFG-Research Training Group „*Physik an Hadron-Beschleunigern*“ at the University of Freiburg
- 2012 – 2016 Spokesperson of the BMBF research focus ATLAS  
(*BMBF Forschungsschwerpunkt ATLAS*, FSP-101 and FSP-103)  
(13 German universities, DESY, Max-Planck Institute of Physics Munich)

## Leadership positions in Collaborations

- 1990 – 1991: Offline coordination, UA2 experiment
- 1997 - 2002: Convenor of the ATLAS Higgs physics working group
- 1999 – 2001: Member of the ATLAS Collaboration Board Advisory Group
- 2000 – 2003: National Contact Physicist of the German groups in the DØ experiment at Fermilab / Chicago
- 2001 – 2003: Chairman of the ATLAS *Speaker Committee*
- Since 2001: Chairman of several ATLAS *Task Forces*
- 2007 – 2008: Physics Coordinator of the ATLAS experiment
- Since 2012: National Contact Physicist of the German groups in the ATLAS-Experiment

## Other activities / awards

- *Visiting Professor* at the *Institute for Particle Physics Phenomenology (IPPP)* of the University of Durham / England (since May 2008)
- External Member of the *Royal Swedish Academy of Science* at the University of Uppsala (since June 2008)
- External Member (*Principal external investigator*) of the *Australian Centre of Excellence for Particle Physics at the Terascale (CoEPP)* (University of Melbourne, since April 2011)
- Prize of the European Physical Society (EPS) for the ATLAS and CMS collaboration for the discovery of the Higgs boson (as a member of the ATLAS collaboration)
- Stern-Gerlach Medal 2015 of the German Physical Society (DPG) for outstanding contributions to the discovery of the Higgs boson