

**Karlheinz Meier (\* 4.5.1955)**

**Ruprecht-Karls-Universität Heidelberg  
Kirchhoff-Institut für Physik**

### **CURRICULUM VITAE**

since 2012 Co-Director of the EU *Human Brain Flagship Project* (HBP)  
2011-2012 Visiting professor École polytechnique fédérale de Lausanne  
since 2010 Coordinator of the EU *BrainScales* Consortium  
since 2009 Coordinator of the Marie-Curie Network *FACETS-ITN*  
since 2009 Member of the Board of the *German Physical Society*  
2007-2009 President of the *European Committee for Future Accelerators (ECFA)*  
2005-2010 Coordinator of the EU *FACETS* Consortium  
2000 Award for Excellence in Teaching from the State of Baden-Württemberg  
1999 Founding Director of the *Kirchhoff-Institut für Physik*  
1994-2012 Project Leader PreProcessor System for the *ATLAS Project at the LHC*  
since 1992 Chair Experimental Physics, Ruprecht-Karls-Universität Heidelberg  
1990-1992 Scientific Staff at DESY (Hamburg, Germany)  
1984-1990 Research Fellow and Scientific Staff at CERN (Geneva, Switzerland)  
1984 Ph.D. in Physics from Hamburg University

### **FIELDS OF INTEREST**

Experimental particle physics, microelectronics instrumentation, physics foundations of information processing, brain-inspired computing

### **SELECTED RECENT PUBLICATIONS**

*A Comprehensive Workflow for General-Purpose Neural Modeling with Highly Configurable Neuromorphic Hardware Systems*, D. Brüderle et al., *Biol Cybern*: 104 (2011), 263  
*Compensating inhomogeneities of neuromorphic VLSI devices via short-term synaptic plasticity*, J. Bill, K. Schuch, D. Brüderle, J. Schemmel, W. Maas. and K. Meier, *Front. Comput. Neurosci.* 4 (2010), 129  
*Establishing a Novel Modelling Tool: A Python-based Interface for a Neuromorphic Hardware System*, D. Brüderle, E. Müller, A. Davison, E. Muller, J. Schemmel and K. Meier, *Front. Neuroinform.* 3 (2009), 17  
*Spike-frequency adapting neural ensembles: Beyond mean adaptation and renewal theories*, E. Muller, L. Buesing, J. Schemmel and K. Meier, *Neural Computation*, 19 (2007), 2958  
*A Mixed-Mode Analog Neural Network using Current-Steering Synapses*, J. Schemmel, S. Hohmann, K. Meier, F. Schürmann, *Analog Integrated Circuits and Signal Processing*, 38 (2004), 233.  
*A self-calibrating single-chip CMOS camera with logarithmic response*, M. Loose, K. Meier, J. Schemmel, *Journal of Solid-State Circuits*, 36 (2001), 586.

### **RESEARCH IN EXPERIMENTAL PARTICLE PHYSICS**

Karlheinz Meier is also co-author of 500+ publications in the field of experimental particle physics. He has been a member of the following particle physics projects : JADE (PETRA, DESY), UA2 (Proton-Antiproton Collider, CERN), RD1 (CERN), H1 (DESY), RD27 8CERN) and ATLAS (CERN)