

CURRICULUM VITAE

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1951 Born in Voralpe (AT), Austrian nationality, married

1965 – 1970 High School in Salzburg (AT), final examination with distinction

1970 – 1976 University of Graz (AT), Theoretical Physics and Mathematics

April 1976 PhD in Theoretical Physics and Mathematics with distinction

1976 – 1978 University Assistant at the Institute for Theoretical Physics, University of Graz (AT)

1978 – 1983 Research Physicist at the Max Planck Institute for Physics, Munich (DE),
Experimental Physics Group (working also at CERN (CH) and Cornell University (US))

1983 – 1985 Fellow at CERN, Geneva (CH)

1985 – 1991 Staff position as Research Physicist at CERN, Geneva (CH)

1991 – 1993 Senior research scientist at the Institute for High Energy Physics of ETH Zurich (CH)

since 1993 Professor for Experimental Particle Physics at ETH Zurich

1997 – 2006 Head of the Institute for Particle Physics at ETH Zurich

2009 – 2013 Head of International Relations at CERN (till March 2013)

2013 – 2016 Advisor to the President of ETH Zurich on International Affairs

2013 – 2016 President of the Lecturers' Conference, ETH Zurich

2014 – 2018 Vice-President of the Foundation Council of the Swiss National Science Foundation

2018 – 2019 President a.i. of the Foundation Council of the Swiss National Science Foundation

Research Activities in the Framework of International Collaborations

1978 – 1979 ACCMOR Collaboration (CERN): Data analysis using π^+p , K^+p interactions at 58 GeV/c

1979 – 1983 CUSB Collaboration, Cornell University (US): e^+e^- collisions at $E_{CM} \sim 10$ GeV, first detailed measurements of beauty-antibeauty bound states

1983 – 1991 UA1 Collaboration (CERN): participation in the **discovery of the Z particle in 1983** (Nobel Prize for this discovery in 1984), first measurement of the W decay in $\tau\nu$ and searches for physics beyond the Standard Model

1991 – 2010 L3 Collaboration at LEP (CERN): Data taking terminated in November 2000; physics topics: Standard Model and searches for the Higgs Boson and new physics

since 1994 CMS Collaboration at LHC (CERN): Strong involvement in the CMS design concept and in the evaluation of the CMS physics potential; hardware contributions focused on all aspects of the crystal calorimeter; physics topics: **discovery of a Higgs-like particle in 2012** (Nobel Prize based on this discovery in 2013) and searches for physics beyond the Standard Model (Supersymmetry)

1995 – 2006 AMS Collaboration (NASA, US): Experiment designed to search for antimatter in space, operated at the International Space Station (ISS)

2003 – 2010 MAGIC collaboration (La Palma, ES): Overall responsibility for ETH group; observation of very high-energy gamma rays from galactic and extragalactic sources

since 2008 FACT collaboration (La Palma, ES): proposed and built first G-APD (SiPM) camera for Cherenkov Telescopes; data taking since October 2011

Management Functions in International Collaborations

CMS Collaboration at CERN:

- 1994 – 2008 Member of the CMS Management Board and Executive Board (2007 – 2008)
- 2000 – 2008 Deputy Chairperson of the CMS Collaboration Board, member of the Finance Board and Co-Chairperson of the Steering Committee

MAGIC and FACT collaborations (Cherenkov Telescopes in La Palma, Canary Islands, ES):

- 2003 – 2008 Member of the MAGIC Collaboration Board
- 2008 – today Founding member of the FACT Collaboration

Membership in National/International Scientific Advisory Committees (selection)

- 1989 – 1992 Programme Advisory Committee (PAC) for the Superconducting Supercollider (SSC) Laboratory in Texas (US)
- 1993 – 1998 CERN Scientific Policy Committee (SPC)
- 1997 – 2008 Chairperson or member of election boards (Wahlkommissionen) for professor positions at Universities in Switzerland (ETH Zurich, EPF Lausanne, University of Zurich), in Austria, as well as for the Research Director position at DESY (Hamburg, DE)
- 2000 – 2002 Board (Aufsichtsrat) of the Hahn-Meitner-Institute, Berlin (DE)
- 2001 – 2004 OECD Global Science Forum Consultative Group on High-Energy Physics
- 2001 – 2005 HEPP Board of the European Physical Society
- 2001 – 2006 Scientific Council Centro Stefano Franscini, Ascona (CH)
- 2003 – 2005 DESY Scientific Council (Wissenschaftlicher Rat), Hamburg (DE)
- 2004 – 2008 Member of the Research Commission, ETH Zurich (CH)
- 2006 – 2013 Scientific Advisory Board of the Max Planck Institute for Physics, Munich (DE)
- 2006 Scientific Advisory Board, University of Vienna (AT)
- 2007 Member of the international evaluation panel for NIKHEF (Amsterdam, NL)
- 2007 – 2011 Member of the Scientific Advisory Board of the Cluster of Excellence '*Origin and Structure of the Universe*' in Munich (DE)
- 2007 – 2012 Board (Aufsichtsrat) of the Austrian Science Fund (FWF), Vienna (AT)
- 2008 – 2018 Member of the Foundation Committee (Stiftungsrat) of Academia Engelberg (CH)
- 2008 – 2012 Member of the European Research Council Advanced Grant Panel on Fundamental Constituents of Matter, Brussels (BE)
- 2012 Member of the Executive Board of the German Science Council (DE)
- 2013 – 2014 Panel Chair of the Helmholtz Association for '*Matter and the Universe*' (DE)
- since 2013 Member of the Trustee Committee of the Körber European Science Prize (DE)
- 2014 – 2016 Member of the International Expert Commission on the Excellence Initiative (IEKE), aimed at promoting world-class science at German Universities (DE)

Awards and Honours

- 2003 '*Grand Decoration of Honour*' of the Federal Province of Styria (AT)
- 2008 German Academy of Science Leopoldina, elected member (DE)
- 2009 '*Cross of Honour for Science and Art, First Class*' of the Republic of Austria (AT)
- 2012 *Erna Hamburger Prize* of the EPFL-WISH foundation (CH)
- 2013 Elected Member of the Executive Board of the Swiss Academy of Sciences (SCNAT)
- 2013 European Physical Society's High Energy and Particle Physics Prize awarded to the ATLAS and CMS collaborations
- 2014 Doctor Honoris Causa, Technical University Vienna (AT)
- 2014 Lise Meitner Lectures at the TU Berlin (DE) and TU Graz (AT), organized by DPG / ÖPG
- 2016 European Academy of Sciences and Arts, elected member (Salzburg, AT)
- 2017 *Chaim Weizmann Lectureship*, University of Fribourg (CH)
- 2017 *Richard E. Ernst Gold Medal*, ETH Zurich (CH)

Publications and Talks (April 2021)

About 1'500 scientific papers (INSPIRES), with more than 170'000 citations; h-index = 182; 37 renowned papers (more than 500 citation, with 5 papers more than 2500 citations; including the Z-discovery paper (UA1 in 1983 with about 2'600 citations), and Higgs-discovery paper (CMS in 2012 with about 12'000 citations)).

More than 470 talks at international conferences, colloquia and seminars as well as talks for government officials, funding agencies and the general public.