CURRICULUM VITAE of FABIO ZWIRNER

Present position

Full Professor (*Professore Ordinario*) of Theoretical Physics
Physics and Astronomy Department 'G. Galilei'
University of Padua

Education

- Ph.D. in Physics (1987), International School for Advanced Studies (SISSA-ISAS), Trieste, Italy
- Master in Physics (1983), International School for Advanced Studies (SISSA-ISAS), Trieste, Italy
- Laurea in Fisica (1981), 110/110 summa cum laude, University of Padua, Italy

Career path

- Full Professor of Theoretical Physics, University of Padua (11/2005-now)
- Paid Scientific Associate, CERN, Geneva, Switzerland, (10/2014-9/2015, on leave from the University of Padua)
- Paid Scientific Associate, CERN, Geneva, Switzerland, (1/2004-12/2004, on leave from the University of Rome La Sapienza)
- Full Professor of Theoretical Physics, University of Rome La Sapienza (11/2000-10/2005)
- Researcher (1988-1993), First Researcher (1993-1998), Director of Researches (1998-2000) in INFN, Sezione di Padova
- Scientific Staff Member, Theory Division, CERN, Geneva, Switzerland (1990-1996, on leave from INFN, Padua)
- Postdoctoral Fellow, Theory Division, CERN, Geneva, Switzerland (1989-1990, on leave from INFN, Padua)
- Postdoctoral Fellow, Theory Group of the Lawrence Berkeley Laboratory and Physics Department of the University of California, Berkeley, USA (1986-1989)

Research

My research has mostly dealt with the theory and the phenomenology of the fundamental interactions, motivated by the desire to understand, within a consistent theoretical framework, the mass generation for the weak gauge bosons, the quarks and the leptons, and the possible unification of gravity with the other forces at the quantum level. I have been focusing on theoretically motivated extensions of the Standard Model, with emphasis on those based on supersymmetry, supergravity and superstrings. On the one hand, I have been pushing further the confrontation of the existing models with experiment, identifying new features and possible tests at contemporary and future experimental facilities. On the other hand, I have been exploring how some long-standing theoretical problems (the gauge hierarchy problem, the flavour problem, the cosmological constant problem, and others) may be addressed in the framework of superstring theories and their effective supergravity theories in four and higher dimensions.

According to the INSPIRE database, I am author of 86 publications in the theory and phenomenology of the fundamental interactions, with about 12000 citations, an average of about 140 citations per paper and an h-index of 51. According to Google Scholar, I am author of 167 publications with more than 15000 citations and an h-index of 56.

Other activities

- Representative of the Italian Ministry of Education, University and Research (MIUR) in the Board of Directors and in the Executive Board of the Italian National Institute for Nuclear Physics (INFN) (2015-2019).
- Member (2015-2020) and Vice-President (2019-2020) of the ERC Scientific Council.
- Member of The Academy of Europe – Academia Europaea (2015-now).
- Chairman and Representative of the Italian Ministry of Education, University and Research (MIUR) in the Steering Committee of the International Centre for Theoretical Physics (ICTP) (2014-now).
- Member (2007-13) and Chairman (2011-3) of the CERN Scientific Policy Committee.
- Member of the Editorial Board of Nuclear Physics B Proceeding Supplement (2013-now).
- Member of the Strategy Secretariat of the European Strategy Session of the CERN Council (2011-13), in particular for the Update of the European Strategy in Particle Physics (2012-13).
- Member of the Board of Directors of Scuola Galileiana, the Excellence School of the University of Padua (2013-2019)
- Member (2012-3) of the National Physics Panel (GEV-02) for the Italian Evaluation of the Quality of Research (VQR 2004-10)
- Member (2012-now) of the Scientific Council of the LABEX P2IO (Paris-Sud area).
- Corresponding Member of Istituto Veneto di Scienze, Lettere ed Arti (2005-now).
- Scientist in charge of the Padua team of the ERC Advanced Grant *DaMeSyFla* (2011-16).
- Editor (2003-now) of JHEP, The Journal of High Energy Physics.
- Member (2002-11), Secretary (2007-9) and Chair (2009-11) of the High Energy Particle Physics (HEPP) Board of the European Physical Society (EPS). As such, Chairman of the International Organizing Committee of the International Europhysics Conference on High Energy Physics, EPS-HEP 2011.
- Divisional Associate Editor of Physical Review Letters (2002-2008).
- Scientist in charge of the INFN team (Padua, Pisa, Rome) of the European RTN/ITN Networks "Across the Energy Frontier" (10/2000-9/2004), "The Quest for Unification" (10/2004-9/2008), "Unification in the LHC era" (10/2009-9/2013).
- Member of Plenary ECFA (European Committee for Future Accelerators) (1998-2006).
- Coordinator of the Padua INFN Theory Group (about 50 FTE) and referee for the National Grant Committee of the INFN Theory Group (1997-2000).
- Member of the CERN LEP Experiments Committee (1993-1996).
- Expert evaluator for: The European Commission in FP6, FP7, HOR2020 (Member of Individual Fellowships PHY Panels; Remote Referee for PE2 ERC Advanced Grants); MIUR-Italy (Member of the PE Selection Committee for SIR 2014; Remote Referee for FIRB, PRIN, Rita Levi Montalcini); INFN-Italy; ANR-France; DFG-Germany; INTAS; SNF-Switzerland; NORDITA; University of Zurich; University of Helsinki; CERN-PH-TH.