

Curriculum Vitae of Prof. Francesco Forti

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Current Position: Full Professor of Physics, Department of Physics, University of Pisa

Education: 1985 – 1988 Graduate school, Physics, Scuola Normale Superiore, Pisa
1985 M.A. Physics, Pisa University

Professional Record: 2016 – present, Full Professor of Physics, University of Pisa
2005 – 2016, Associate Professor of Physics, University of Pisa
1996 – 2005, Research faculty at INFN-Pisa
1992 – 1993, Visiting Scientist at Lawrence Berkeley Laboratory
1990 – 1996, Staff researcher at INFN-Pisa
1988 – 1990, Postdoc at INFN-Pisa

Research Experience:

- Coordination of the Belle-II Italian collaboration, 2013-2015
- Participation in the Belle-II Silicon Vertex Detector construction, 2013-present
- Development of a focal plan for X-ray detection at FEL machines (PixFEL), 2014-present
- Coordinate the SuperB Detector group (2007 – 2013)
- Editor of the SuperB Detector Technical Design Report (2011 – 2012)
- Develop the physics case and detector design for the SuperB project (2005 – 2013)
- Detector section convener and editor of the SuperB Conceptual Design Report (2006 – 2007)
- Development of monolithic active pixel systems using commercial CMOS triple-well technology (2003 – 2013)
- Analysis of $\tau \rightarrow IK_s$ lepton flavour violating decays with the Babar experiment (2005 – 2008)
- Study of the physics reach of a very high luminosity B Factory (2002 – 2005)
- Development of a parametrized detector simulation code used for high luminosity B Factory Physics studies (2002 – 2003).
- Analysis of CPT symmetry limits using B decays into CP and flavour eigenstates with the Babar experiment (2002 – 2003)
- Optimization and construction of the replacement resistive plate chambers for the Babar forward endcap (2001 – 2002)
- Development of double-sided silicon strip detectors with integrated coupling capacitors for the Babar Silicon Vertex Tracker (1994-1995)
- Design and construction of the Babar Silicon Vertex Tracker (1993 – 1999)
- Design study for a detector to study CP violation in the K sector at the DaΦne e+e- collider (1990 – 1992)
- Development of active devices (MOS, JFET, bipolar transistors) on high resistivity substrate for application as particle detectors (1994 – 2001)
- Simulation and measurement of interpixel capacitances for the Pixel Detector Development Collaboration for the SDC experiment at SSC (1993)
- Study of MOS transistors matching characteristics in the Pixel Detector Development Collaboration for the SDC experiment at SSC (1992 – 1993)
- Feasibility study for SOI on high resistivity substrate pixel detectors in the RD19 collaboration

at CERN.

- Development of alignment software for the Aleph VDET (1990 – 1991)
- Development of heavy flavour identification algorithms using secondary vertices for the Aleph experiment at CERN (1986 – 1989)
- Design and construction of the silicon Vertex Detector for the Aleph experiment at CERN (1985 – 1991)
- Development of double-sided readout silicon strip detectors (1985 – 1990)

Publications:

More than 800 publications

Teaching experience:

- Physics Laboratory 3 course for Physicists, Pisa University (2012 – present)
- Physics Laboratory VI course for Physicists, Pisa University (2008)
- Thermodynamics for Biomedical Engineering, Pisa University (2006)
- General Physics for undergraduate engineering students, Pisa University (2005 – 2012)
- Physics Laboratory V course for Physicists, Pisa University (2004)
- Lessons on “Physics perspectives at B-Factories” and “e+e- Colliders: the luminosity frontiers”, for the “Particle Physics” course, Physics Graduate School, Pisa (2003, 2004)
- Lessons on “Semiconductor detectors” for Nuclear and Subnuclear Physics Laboratory, University of Pisa (1998,1999)
- Lessons on “Physics of semiconductor devices” for Physics Laboratory III, University of Pisa (1991,1994)
- Series of seminars on “Solid state and vertex detectors” for the “High Energy Physics Detectors” classes, Physics Graduate School of University of Pisa. (1992 – 1997)
- Teaching assistant for Physics Laboratory III, University of Pisa (1987 – 1992)
- Tutor for high school students outreach courses, Scuola Normale Superiore, Pisa (1986 - 1987)
- Teaching assistant for “System modeling”, Prof. Mancini, Scuola Normale Superiore, Pisa (1986)

Special Appointments:

- Chair, Belle-II Executive Board, 2014-present
- Member, Belle-II Executive Board, 2014-present
- Chair, Belle-II SVD Institutional Board, 2014-2106
- National Coordinator, Belle-II INFN Collaboration, 2013-2014
- Co-Chair of SuperB Detector Technical Board, 2011 – 2013
- Co-convenor, SuperB project, detector R&D, 2006 – 2011
- National coordinator, P-SuperB INFN Project, 2008 – 2011
- Local coordinator of AIDA european project, 2010 – present
- Spokesperson, INFN SLIM5 R&D Project, 2006 – 2008
- Member, BaBar experiment, Executive board, 2003 – 2009
- Co-chair, Babar experiment, SVT Long term task force, 2003-2004
- Co-chair, Babar experiment, 10^{36} Study group, 2002-2003
- Member, Babar experiment, Long term planning task force, 2002
- Member, Babar experiment, Instrumented Flux Return subsystem steering committee, 2001-2002
- Italian representative, High Energy Physics Technical Advisory Subcommittee of HEP-CCC, 2000-2003
- Member, INFN national computing committee, 1998-2001

- Co-project manager, BaBar experiment, Silicon Vertex Tracker subsystem, 1994 – 2000
- Aleph Minivertex Software coordinator (1986)

Organization of conferences and workshops:

- Chair, Vertex Workshop, 2016
- Pisa Meeting on Advanced Detector in 2003, 2006, 2009, 2012
- Hadron Collider Physics in 2007
- Babar collaboration meeting in 2003, 2005, 2008
- Several SuperB Workshops in 2008 - 2012

Review Committee Appointments:

- Chair, CERN Large Hadron Collider Committee, 2015-present
- Reviewer for Italian Government SIR projects, 2014
- Reviewers for ERC projects, 2009, 2011, 2013, 2015
- Member, U.S. NSF-DOE LHC Joint oversight group, 2009
- Member, CERN Large Hadron Collider Committee, 2004 – 2008.
- Chair, INFN Grid and LHC computing review committee, 2004 – 2007
- Reviewer, Italian Government Research Department, 2003 – 2006
- Member, Fermilab Technical Review Committee, 2001 – 2002.
- Member, INFN Atlas experiment review committee, 1996 – 2004