

MASSIMO CARPINELLI

EDUCATION

Born 29/04/1964 in Benevento

Ph.D. in Physics from University of Pisa, granted 1992. Thesis Topic: B₀, B_s meson lifetime measurement with the ALPEH detector.

ACADEMIC CAREER

2006-present **Professor**, University of Sassari.
2001-2006 **Associate Professor**, University of Pisa.
1994-2001 **Assistant Professor**, University of Pisa.
1992-1994 **Post Doctoral Fellowship**, Istituto Nazionale Fisica Nucleare.

RECENT UNIVERSITY AND PROFESSIONAL SERVICE

2014 - present **President**, University of Sassari.
2011-2014 **Chair** "Commissione Scientifica Nazionale V"-CSN5 (INFN Board for Technology Research). The CSN5 activity involves more than 480 FTEs; the CSN5 budget is 5 Million of Euros/year. The CSN5 physicists have published more than 300 (ISI) papers/year
2010 - 2012 **Dean**, Faculty of Mathematics, Physics and Natural Science; University of Sassari.
2007 - 2011 **Member of the Board of Director** of the CyberSar consortium, (INFN, INAF, CRS4, University of Sassari and University of Cagliari); consortium for supercomputing, computational modeling and management of large database.
2007 - 2009 **Chair**, Department of Mathematics and Physics; University of Sassari.

RESEARCH EXPERIENCE

2013-Present **HPS Experiment at Jefferson Lab**
The experiment is aimed at discovering a hidden-sector, heavy photon. Such a particle would have mass in the range 0.01 to 1.0 GeV. Heavy photons are possible candidate as dark matter. Design and construction of the electromagnetic calorimeter
2011-2013 **FIRST (Fragmentation of Ions Relevant for Space and Therapy experiment at GSI)**
Design and construction of the detector for the measurement of the ¹²C beam fragmentation cross section, relevant for the application to hadrontherapy
2009-2012 **Advanced Imaging with Inverse Compton Scattering at the BNL Accelerator Test Facility.** (INFN, BNL, UCLA, University of Sassari collaboration)
Co-spokesperson of the experiment. The experiment seeks to exploit the unique capabilities of ultra-fast inverse Compton scattering sources for advanced applications in imaging. Design of the experiment, Data Taking, Phase contrast analysis.
1994-present **BaBar Experiment at SLAC**
Proponent with the INFN Pisa group of the BaBar experiment at PEP-II (CP Violation, flavor physics). Design, Construction and Operation of the BaBar Silicon Vertex Detector. Construction of the Instrumented Flux Return Detector. BaBar Physics Book: analysis of charged B-meson decays, analysis of neutral B meson decaying in two pions. Coordination of the Vertexing and Composition Tools working group. Contribution to the following analysis: CP violation in B-physics; analysis of the D⁰K dalitz decay of B mesons.
1989-1998 **Aleph Experiment at CERN LEP**
Construction, Operation and Alignment of the Aleph Silicon Vertex Detector. Analysis of data related to vertex detector and tracking system: tau lifetime, b physics, R_b, neutral and charged B meson lifetime
1988-1991 **SLD Experiment at SLAC SLC**
Design, Construction and test of the front-end electronic and of the Fastbus readout and trigger module of the SLD-WIC

Teaching Experience

According to the Italian law, I taught at the undergraduate, graduate and Ph.D. level, starting 1994 to present. I taught Classical Mechanics at the undergraduate level, Electronics at the graduate level, Experimental Particle Physics at the graduate and Ph.D. level

BIBLIOMETRIC INDICATORS (JAN 2016)

Source SCOPUS: Co-author of 810 scientific articles on refereed journal; total number of citations 20338; h-index 63

Source INSPIRE: Co-author of 790 scientific articles on refereed journal; total number of citations 45409; h(hep)-index 101.

Selection of Papers (one per topics/projects)

- 1) The design, construction and performance of the ALEPH silicon vertex detector
Mours, B et al.
Nucl. Instrum. Meth. A379 (1996) 101-115
- 2) Measurement of the B-hadrons lifetimes
Buskulic, D et al. (ALEPH Collaboration)
PHYSICS LETTERS B Volume: 257 Issue: 3-4 Pages: 492--504 MAR 28 1991
- 3) A precise measurement of the tau-lepton lifetime
Buskulic, D et al. (ALEPH Collaboration)
PHYSICS LETTERS B Volume: 297 Issue: 3-4 Pages: 432-448 DEC 31 1992
- 4) Measurement of the B₀ and anti B₀ meson lifetimes
Buskulic, D et al. (ALEPH Collaboration)
PHYSICS LETTERS B Volume: 307 Issue: 1-2 Pages: 194-208 JUN 10 1993
- 5) The BaBar silicon-vertex tracker: Performance, running experience, and radiation-damage studies
Re, V et al.
IEEE TRANSACTIONS ON NUCLEAR SCIENCE Volume: 49 Issue: 6 Pages: 3284-3289 DOI: 10.1109/TNS.2002.806170
- 6) The BABAR Physics Book: Physics at an Asymmetric B Factory
SLAC Report SLAC-R-504
- 7) Observation of CP violation in the B₀ meson system
BABAR Collaboration (Bernard Aubert et al.).
Phys.Rev.Lett. 87 (2001) 091801.
- 8) Measurement of the Cabibbo-Kobayashi-Maskawa angle γ in $B_{u,d} \rightarrow (D, K) \pi \pi$ decays with a Dalitz analysis of $D \rightarrow K S(0) \pi \pi$
BABAR Collaboration (Bernard Aubert et al.)
Phys.Rev.Lett. 95 (2005) 121802.
- 9) Performance of second generation BABAR resistive plate chambers

Anulli, F et al.

Nucl. Instrum. Meth. A552 (2005) 276-291

- 10) BABAR Analysis Document #102,
February 7, 2005
The BaBar Vertexing
- 11) Quantitative evaluation of single-shot inline phase contrast imaging using an inverse
compton x-ray source
Oliva, P et al.
APPLIED PHYSICS LETTERS Volume: 97 Issue: 13 (2010)
- 12) The FIRST experiment at GSI
Pleskac, R et al.
Nucl. Instrum. Meth. A678 (2012) 130-138