Currently Full Professor at Dipartimento di Fisica of Università degli Studi di Milano (SSD FIS01, SC 02/A1), with *Incarico di Ricerca* from Istituto Nazionale di Fisica Nucleare (INFN)

Studies and academic career

Since 2017 Full Professor SSD FIS01, SC 02/A1, Università degli Studi di Mlano
2011-2017 Associate Professor SSD FIS01, SC 02/A1, Università degli Studi di Milano
2000-2011 Reaserch Officer SSD FIS04, Università degli Studi di Milano
1999-2000 Research Associate, Universität Bonn
1997-1998 Research Fellow, CERN Geneva
1996 Post-Doc Fellowship INFN Sezione di Milano
1995 PhD in Physics, Università degli Studi di Milano
1991 Degree in Physics (110/100 cum laude) Università degli Studi di Milano

Resposibilities within the ATLAS and DELPHI experiments

2013-2015 Convener of the Tau Performance Working Groups of the ATLAS Experiment
2010-2012 Convener of the Inner Tracking Working Group of the ATLAS Experiment
2006-2010 Responsible of the ATLAS Pixel Detector offline software,
2003-2006 Coordinator of the acceptance tests and production of the ATLAS pixel detector modules

Summary of research activity

My reasearch activity on Experimental Particle Physics developed mainly within the DELPHI Experiment at LEP and the ATLAS Experiment at the LHC. Its leitmotiv si the exploitation of semiconductor detector, with excellent spacial resolution for charged particle tracking, with emphasys on the identification of short lived particles: hadrons containing quarks b and c and the tau lepton.

Working in a large collaporation opens up a number of possibilities to contribute to the scientific goals of the experiment, and I had the opportunity to take responsability roles on detector R&D and construction, operation, software development for calibration and reconstruction, performance studies and data analysis.

Below is a schematic summary of the key points in my scientific activity:

- Construction, alignment and operation of the DELPHI microvertex detector, initially with microstrips and with pixels for the LEP running above the Z peak (LEP2).
- Alignment of the DELPHI tracking system, initially with dimuons from the Z decay and later with hadronic tracks and cosmics at LEP2. The microvertex detector and the alignment have been key tools for the scientific achievement of the DELPHI detector, in particular its measurement of b-quark width and asymmetries on the Z pole.
- Precision measurement of the tau lepton lifetime in the DELPHI experiment, which is also a key ingredient for the verification of the universality of charged current interactions.
- Construction and operation of the ATLAS pixel detector, especially following the indium bump-bonding process and the calibration of detector modules. This hardware activity was followed by coordinating the reconstruction software and implementing the offline detector calibrations during the data taking.

- Coordinating the Inner Tracking performance group, I had the opportunity to follow many early ATLAS analysis including some early heavy ions results relying on track-based observables.
- I took part in analyses involving the production of tau leptons: the first observation of the W to tau-nu events, the energy calibration of tau objects, till the measurement of the Higgs boson decay into tau pairs and the search for CP violation in the Higgs VBF production.
- In the last years I have been talking part in the R&D for monolitic CMOS detectors with a depeleted substrate, for application at the HL-LHC and at future e+e- colliders.
- This activity is developed in paralles with the R&D for hybrid pixel detector for ATLAS, now near to the preproduction phase for the construction of the ITk, the new silicon tracking system that will operate at the High Luminosity LHC.