



Dr. Giovanni Passaleva
Istituto Nazionale di Fisica Nucleare
Via G. Sansone 1 – 50019 Sesto Fiorentino
Florence - ITALY



Curriculum Vitae - GIOVANNI PASSALEVA

Employment

- **2015 – present:** Research Director at Istituto Nazionale di Fisica Nucleare - Florence – Italy
- **2017 – 2020:** Guest Professor at CERN
- **2006 – 2014:** First Researcher at Istituto Nazionale di Fisica Nucleare - Florence - Italy.
- **1997 – 2005:** Researcher at Istituto Nazionale di Fisica Nucleare - Florence - Italy.
- **1997 – 1999:** CERN Fellow.
- **1995 – 1997:** Postdoctoral position at Eidgenössische Technische Hochschule (ETH), Zurich.

Overview of scientific activity

Since **July 2020** I am actively involved in the INFN TimeSpot project with particular interest in the development of timing diamond detectors.

From **July 1st 2017** to **June 30th** I have been **Spokesperson of the LHCb collaboration** with a three years mandate until **June 30, 2020**.

I am among the **founders of the LHCb Florence** group and I joined the collaboration in **2000**.

I initially worked on an R&D program on RPC detectors for the LHCb muon system and then joined the MWPC construction project. I proposed Florence as a MWPC production site and coordinated the production and test of about one fifth of all the 1380 muon wire chambers.

I served as **Project Leader of the LHCb muon system** in the crucial years of final commissioning and of the LHC startup and during the whole Run 1. During these years I also contributed to the development of the Muon System online software. As Muon Project Leader I gave a strong boost to the development of the muon detector upgrade and I co-wrote and co-edited the muon system chapter of the Particle Identification upgrade Technical Design Report.

In **2012** I was elected **Spokesperson of the Italian LHCb collaboration**. In this capacity I coordinated the Italian effort towards the upgrade including contributions to the muon system, the RICH, the Upstream Tracker and the trigger. I successfully submitted the project to the INFN obtaining substantial funding and enlarging the Italian collaboration with new groups and collaborators.

From **June 2014** to **June 2017** I served **LHCb as Upgrade Detector Coordinator**.

I contributed to the early LHCb physics program by working on the muon reconstruction software and on the analysis for the first measurement of J/ψ production cross section at $\sqrt{s} = 7$ TeV. In more recent years, I was involved in the analysis of proton-Helium collisions within the Ion physics and Fixed Target working group.

Before joining LHCb I worked on the L3 experiment at LEP where I gave a substantial contribution to the design and construction of the Silicon Microvertex Detector, with responsibilities in the design, test and commissioning of the sensors and of the front-end and readout electronics. From **1995** to the end of LEP running, I have been in charge as **coordinator of the operations of the L3 vertex detector**. My physics analysis in L3 was mainly devoted to precision electroweak measurements,



namely of Z resonance parameters and forward-backward asymmetries in $e^+e^- \rightarrow \tau^+\tau^-$, tau lepton polarization, measurement of the R and A_{FB} observables.

During my CERN fellowship in **1997 – 1999** I contributed to the design and test of a prototype scintillating fibre imaging detector for an experiment (FAST, at PSI - Zurich) to measure with very high precision the muon lifetime.

In the past few years I was involved in a large European project named ELI-NP (Extreme Light Infrastructure – Nuclear Physics), dedicated to the construction of a high brilliance monochromatic source with energies in the range 1 – 20 MeV, for Nuclear Physics studies. With my group we have designed a system of detectors for the diagnostic and monitoring of the photon beam with a goal energy resolution at the per mil level.

From **2005 to 2011** I have been **member of the Italian Committee for High Energy Physics** (The INFN “*Commissione 1*”). Within the same Committee I worked as referee for ATLAS and CMS experiments and their future upgrades.

In the years 2010-2013 I have been member of the ACCU (Advisory Committee for Cern Users) as Italian Delegate.

I am since long involved in outreach activities (Official CERN/LHCb Guide, organization of the International Masterclasses, public seminars and lectures, articles in scientific popularization magazines)

I am **member of the International Advisory Committee** of major High Energy Physics Conferences such as EPS-HEP.

I am author of almost 860 papers on peer reviewed journals.

I have an h-index of 79 (Scopus).

Leadership positions in physics research

- **2017 – present:** LHCb Spokesperson.
- **2014 – 2017:** LHCb Upgrade Detector Coordinator.
- **2012 – 2014:** Italian National Representative of LHCb.
- **2012 – present:** Member of the LHCb Membership Committee.
- **2008 – 2012:** Project Leader of the LHCb Muon System.
- **2003 – 2006:** Manager of the Florence production site of the Muon System MWPCs.
- **2000 – 2017:** Group Leader of the LHCb Florence group - In this capacity, member of the LHCb Collaboration Board
- **1995 – 2000:** L3 experiment Silicon Microvertex Detector operation coordinator.

Education

- **1994:** PhD in Physics at University of Perugia. Thesis: "*Measurement of the $e^+e^- \rightarrow \tau^+\tau^-$ cross section and forward-backward asymmetry at the Z resonance with the L3 detector at LEP*"
- **1990:** Degree in Physics at University of Florence.