

CURRICULUM VITAE OF CRISTINA RICCARDI

EDUCATION AND POSITIONS

1990 Summer student at Fermilab (Batavia, IL, USA)

1991 Degree in Physics "cum laude". Thesis: "Fotoproduzione di quark pesanti al Tevatron del Fermilab"

1991-1994: Ph. D. in Heavy Flavour Physics at the University of Pavia. Thesis: "Nuovi decadimenti di barioni charmati" discussed in Rome on the 18/10/1995.

1995-1996: Visiting Scientist at Fermilab

1996-1998: Post-doc position at the University of Pavia

1998-2015: Permanent position as Researcher at the University of Pavia

2015-today: Associate Professor at the University of Pavia

1990-today: Research Associate at INFN

1990-2004 : Research Associate at Fermilab

Since 1994: Research Associate at CERN

CHARGES/RESPONSABILITIES

1996-1998: FOCUS Hadron Calorimeter detector coordinator at Fermilab.

1996-2004: Responsible person for the FOCUS Hadron Calorimeter offline library

1998-1999: Member of a task force for the FOCUS data reconstruction and skims

2005-today: Software Coordinator for the CMS Pavia group

2006-2007: Member of the Scientific Council of the Library "A.Volta" of the University of Pavia

2013-2015: Local Team Leader for INFN of the CMS Pavia group

Institution Representative for Pavia in the CMS Collaboration Board,

Institution Representative in the CMS Muon Institution Board,

Institution Representative in the CMS RPC Institution Board,

Institution Representative in the CMS GEM Institution Board.

Contact person for the charged Higgs into cbbar of the Higgs-Exotics group of the Higgs Physics Analysis Group (PAG) di CMS

October 2015- June 2016: Member of the CMS GEM Publications & Conference Committee

2015-today: Local Team Leader for INFN of the RD_Fase2 Pavia group in CMS

2016-today: National coordinator for the INFN of the GEM project in the CMS experiment.

2016-today: Deputy Chair of Muon Institution Board of the CMS experiment

SCIENTIFIC ACTIVITY

1990-1992: Photoproduction of charm at E687-Flatev, Fermilab, Batavia, ILLINOIS
Monitoring and calibration of the hadronic calorimeter. Charmed baryons decays analysis. First observation of the Ω_c^0 .

1993-2004: Photoproduction of charm at FOCUS, Fermilab

Collaboration to the construction of the hadronic calorimeter and in charge for its calibration and monitoring. Branching ratios and lifetimes measurements of charmed baryons.

1993-1995: R&D on RPC (Resistive Plate Counters) detectors at Pavia and CERN

1995-today: RPC quality and longevity test and Higgs physics at CMS experiment at LHC, CERN, Geneva.

1995-today: CMS experiment at LHC, CERN, Geneva.

Collaboration to the realization of the facility for the quality control of the RPC chambers installed on the CMS detector. RPCs commissioning and longevity studies. Simulation studies for the upgrade of the CMS Muon system and measurements of the performance of the GEM (Gas Electron Multiplier) detector. Standard Model Higgs Montecarlo studies in the low mass region through associated production and vector boson fusion. Searches for charged Higgs in MSSM sector.

2014-2015: Contributor of the Technical Design Report "CMS TECHNICAL DESIGN REPORT FOR THE MUON ENDCAP GEM UPGRADE" (GEM TDR (CMS-TDR-15-001)) for the GE1/1.

2009-2013: Anti-hydrogen physics at AEGIS at AD, CERN, Geneva

Geant4 simulations to study the performance of the AEGIS detectors.

2010-2012: Geant4 simulation study for the eye treatment planning system at CNAO.

Database inSPIRE:

Citeable papers (all papers) 736, 650 (published only)

Total number of citations: 55573 (all papers), 54743 (published only)

Average citations per paper: 75,5 (all papers), 84,2 (published only)

H-index with INSPIRES: 113 (all papers), 112 (published only)

TEACHING ACTIVITY

1995: Lectures on "Charm physics" for Ph.D. in Physics at University of Pavia

1998-1999: Lectures on "Variables for high energy physics" for the course of "Istituzioni di Fisica Superiore" (Degree in Physics)

1998-1999: Lectures on "Error analysis" for the course of "Meccanica e Termodinamica" (Degree in Mathematics)

1999-2010: Teaching assistant of "Elettromagnetismo-Onde e Ottica" (Degree in Physics)

2003-2005: Tutor of undergraduate students for IUSS (Istituto Universitario di Studi Superiori)

2009-2012: Course on "Fisica generale I" - Module II (Degree in Mathematics)

2011-2013: Course on "Radioattività I" (Degree in Physics)

2012-today: Course on "Fisica generale I" (Degree in Mathematics)

Since 2016: Course on "Esperimentazioni di Fisica I" (Degree in Physics)

Advisor of 2 PhD theses on charged Higgs physics and detectors for the CMS Muon system upgrade.

Advisor of a research INFN fellow on Higgs physics.

Supervisor of a CERN 2015 summer student program.

Advisor or co-advisor of 5 master's degree thesis on charm physics and 1 on anti-hydrogen physics. Advisor of 4 bachelor's degree thesis on anti-hydrogen physics, geoneutrinos and hadrontherapy physics, entropy of the ideal gas.

Advisor of 2 master's degree thesis on the RPC longevity measurements in the CMS experiment.

Coordinator for the CMS 2015 MasterClass in Pavia.