

Part A. Personal Information

Surname(s)	Bosman	
Forename	Martine	
Researcher codes	WoS Researcher ID	J-9917-2014
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A.1. Current position

Post/ Professional Category	Head of Experimental Division, Research Professor
Key Words	Particle Physics, CERN
Name of the University/Institution	Institut de Física d'Altes Energies (IFAE) Edifici Cn, Campus UAB, E-08193 Bellaterra

A.2. Education (title, institution, date)

Year	University	Degree	Title
1973	Univ. Catholique de Louvain (Belgium)	First degree	Graduate in Physics
1979	Univ. Catholique de Louvain (Belgium)	PhD	PhD in Physics

A.3. Indicators of Quality in Scientific Production

Total number of publications: 1283; h-index: 109
 Number of publications 2016-2020: 464 (Q1 papers: 420; D1 papers: 365)
 Total number of citations 2016-2020: 12943 (Cites/Paper: 27.9)
 Source: Scopus (as of 11/11/2020)

Part B. Summary of CV

- I did my PhD in experimental nuclear physics at the 100 MeV cyclotron of Louvain-La-Neuve measuring the neutron capture by proton (Belgium, 1973-79).
- After completing the PhD, I was granted a research fellowship at CERN and moved to the field of high energy physics in particular the study heavy quarks. I studied the "charm" quark in fixed-target experiments at the CERN SPS proton accelerator (ACCMOR Collaboration, NA11/NA32 experiments, 1979-1984). I measured the lifetime of mesons containing a "b" quark at the electron-positron collider PEP at the Stanford Linear Accelerator Centre SLAC (MAC experiment, 1984-85). Back at CERN as researcher at the Werner Heisenberg Max-Planck Institute of Munich, I worked at the LEP electron-positron collider (ALEPH experiment, 1985-1992) studying further properties of the b quark.
- I moved to the Universitat Autònoma de Barcelona in 1993 and later to IFAE, I concentrated on the heaviest quark, the "top", and Higgs boson physics with the ATLAS detector at the LHC. I dedicated the first years to the design, construction and commissioning of the ATLAS hadronic calorimeter, the design of the software for the online event selection system computer farm (trigger) and the estimation of the radiation background in the ATLAS cavern. In parallel, I worked on the reconstruction and calibration of "jets" of particles produced in proton-proton collisions as coordinator of the group dedicated to this subject in ATLAS. Later, I co-coordinated the ATLAS group in charge of preparing the "top" quark related physics analysis. Once data taking started, I participated in the measurement of properties of the top quark and the search for an electrically charged Higgs boson.
- In ATLAS, I have been elected to various responsibility positions in the ATLAS Collaboration: chair (deputy chair) of the ATLAS Collaboration Board (CB), the ATLAS body formed by the representatives of the 178 institutes belonging to the collaboration, member of the Advisory Committee of two CB chairs (2000/01, 2008/09), chair (member) of the Speakers Committee during 2005/07, National Contact physicist representing Spain in matters of the ATLAS Collaboration since 2014.
- At IFAE, I was responsible of the ATLAS Physics and Operation group (2003-10,16-19). I am member of the director Advisory Group since 2012 and director of the Experimental Division since 2020.
- I participate in many peer-reviewing activities including refereeing publications for journals, scientific projects, selection of fellowship recipients.

Part C. Relevant accomplishments

C.1. Publications highlights

Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC

The ATLAS Collaboration (G.Aad et al.), Physics Letters 716B (2012) 1–29

The ATLAS Experiment at the CERN LHC Collider

The ATLAS Collaboration (G.Aad et al., 2800 authors), J. of Instrumentation, JINST S08003, 1-407

Precision Electroweak measurements on the Z resonance

The ALEPH and DELPHI and L3 and OPAL and SLD and LEP Electroweak Working Group and SLD Electroweak Group and SLD Heavy Flavour Group Collaborations (S. Schael et al.)

Physics Report 427 (2006) 257-454

Determination of the lifetime of bottom hadrons

The MAC Collaboration (W. Ash et al.), Physical Review Letters 58 (1987) 111-122

Production and decay properties of D and D mesons in pi-Be interactions*

The ACCMOR Collaboration (R.Bailey et al.) Physics Letters 132B (1989) 237-240

C.2. Stays in Foreign Institutions

Université Catholique de Louvain, Belgium, PhD student 1973-1979

CERN – European Centre for Nuclear Research, Switzerland, Researcher 1979-1984

Stanford Linear Accelerator Center, USA, Researcher, 1984-1985

Max-Planck Institute Munich, Germany & CERN, Researcher 1985-1991

C.3. Participation in National and International Committees

- Scientific policy committees

CVI, Comitato di Valutazione Internazionale INFN (Italy): Member since 2016

Comisión de Infraestructuras de Física de Partículas y Aceleradores (Spain): Member 2103-2018

European Committee for Future Accelerator (CERN): Spanish representative at Plenary ECFA meeting 2006-2015

- Fellowships and projects selection committees

FWO-Expert Panels. Brussels (Belgium): Member 2015-2018, Chair 2019-2020

CERN Associates and Fellows Committee (CERN): Member 2010-2016

Comité de Selección de Becas de La Caixa (Spain): member 2011-2013

Panel members in many project and fellowship committees for the Spanish Science Ministry

- ATLAS collaboration committees

Collaboration Board of the ATLAS Experiment Chair (Deputy) 2011-2014

Top quark Physics Working Group (co-Chair) 2007-2009

Collaboration Board Chair's advisory committee: Member 2000-2001, 2008-2009

Speakers Committee: Member 2005- 2007, Chair 2007-2008

Combined Calorimeter Performance Working Group: co-Chair 1996-2003

- Equal opportunities committees and activities

Equal Opportunity Committee of the European Physical Society: Member since 2014

Comissió d'Igualtat d'Oportunitats i Gestió de la Diversitat (CERCA): Member 2014-2020

IFAE Gender Equality Committee: Chair since 2017

C.4. Projects, talks, conferences

Presentation of many talks at international conferences

Organization of international conferences as member of the local committee

TOP 2011, LHCP 2013, SUSY 2018

Member of the international advisory committee of international conferences

Europhysics Conference on High Energy Physics 2103, 2015, 2019, 2021

Particles and Nuclei International Conference PANIC 2014, 2017, 2020

C.5. Awards

Member of the Reial Acadèmia de Ciències i Arts de Barcelona, since 2018

Medalla Narcís Monturiol al merito científico y tecnológico, Catalunya, 2015

Member of the Scientific Advisory Council of the Gadea Science Foundation, Spain, 2019

High Energy Physics Prize of the European Physical Society attributed to the ATLAS Collaboration in 2013, beneficiary as member of the Collaboration