

Jorgen D'Hondt – Vrije Universiteit Brussel, VUB

Born in Belgium
PhD in 2003 at the VUB (DELPHI experiment)
Professor since 2006 at the VUB (now Full Professor)

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Annual Prize for Science Valorisation by the VUB (2014)
Young Scientist 2013 by the World Economic Forum (2013)
Prize for Science Communication by the Royal Flemish Academy of Belgium (2013)



SELECTED LEADERSHIP ROLES IN CMS (member of CMS since 2003)

- **Administrative PI of the CMS Phase-2 Tracker project in Belgium (2017-2023)** *~10M EUR core contribution obtained in open competition with other disciplines*
- **PI of the Flemish contribution to CMS (largest Big Science project in Flanders)** *~1.2M EUR per year for operations, TIER-2, technicians and M&O obtained in open competition*
- **Chairperson of the Collaboration Board (elected, 2014-2017)** *hence I know CMS very well from the inside; some initiated actions: CB Newsletter, Young Scientist Committee, EPR for new members, EPR review & core EPR, 27 new institutes, institute clusters, updated CMS Constitution, Endcap Calorimeter decision, advice group for grant applications, upgrade Scope Documents, Open Data releases, merge of Awards Committees, Diversity Office, Art@CMS Steering Panel, Career Information, ...*
- **Member of the CMS Executive Board, Management Board and Finance Board (2013-2017)**
- **Chairperson of the CMS Search Committee (2014-2017)**
- **Secretary of the Collaboration Board (2013-2014)**
- **Chairperson of the CMS International Committee (2013-2019)** *boost for new institutes & new entrance deal*
- **First co-chairperson of the CMS Career Committee (2012-2014)** *first CMS career events are now LHC wide*
- **Team leader of the VUB (2008-now)**
- **Coordinated the Analysis Support Task Force, at the basis of the Analysis Operation group in Computing**
- **First co-convener of the top quark PAG (2007-2008)** *initiated Top Quark Analysis Framework which evolved to PAT and current data formats*
- **Member of Physics Coordination (2007-2008)**
- **Responsible for CMS Silicon Tracker module production at Brussels (2003-2006)**
- **Member of the Advisory Board for several of the initial CMS Data Analysis Schools**
- **Until recently member of the Tracker Institution Board and the Tracker Phase-2 Upgrade Steering panel**
- **Significant ARC contributions mostly as chair**

SELECTED OTHER LEADERSHIP ROLES

- **Chairperson of the European Committee for Future Accelerators, ECFA (elected, 2018-2020)** *hence I know the international landscape of particle physics very well; some initiated topics: study of recognition for individual achievements in large collaborations, initiated ECFA Newsletters, initiated the debate on the European Strategy for Particle Physics among early career researchers, Open ECFA sessions to inform the community about new developments, Higgs at Future Collider study, ...*
- **Director of the Inter-university Institute for High Energies (2011-now, VUB part)** *~100 members*
- **Coordinator VUB Strategic Research Programme High-Energy Physics (2013-now)** *23 professors*
- **President of the Young Academy of Belgium (Flanders) (elected, 2013-2015)** *founding president*
- **President of the Department of Physics (2012-2014 and 2016-2018, VUB)**

SELECTED ROLES IN COMMISSIONS OF TRUST

- **European delegate in the International Committee for Future Accelerators, ICFA (2018-2020)**
- **Invited to the CERN Council (2018-2020) and member of CERN's Scientific Policy Committee (2018-2020)**
- **Member of the European APPEC (astroparticle) and NuPECC (nuclear physics) committees (2018-2020)**
- **Member of Strategy Secretariat organising the update of the EU Strategy for Particle Physics (2018-2020)**
- **Member of the European Physics Society HEPP board (2018-2020)**

- **Deputy Spokesperson of an Excellence of Science (EoS) project “be.h”** (2018-2021, 4M Euro)
- **Member of advisory boards**, e.g. *the European H2020 ESCAPE external expert advisory board (since 2019, <https://projectescape.eu>), the Scientific Advisory Panel of NIKHEF (since 2019, Netherlands)*
- **Member of review panels**, e.g. *high-level committee for the Dutch National Roadmap for Large Research Infrastructures (2019-2020, Netherlands, ~90M EUR budget), the Spanish Research Agency panel for HEP (2019, Spain), the HCERES review panel for IRFU (2018, France), NWO committee for VICI grants (2014-2018, Netherlands, ~1.5M EUR each), MYRRHA review panel of the Belgian Federal Government (2018, Belgium), FWO Committee for International Collaboration (2012-2017, Belgium)*
- **Belgian delegate to the Restricted European Committee for Future Accelerators** (2012-2018)
- **Chairperson of the MYRRHA international review panel of the Flemish Government** (2017, Belgium) *now an approved ESFRI project which is partially funded, i.e. ~0.5B EUR out of a total investment of ~1.6B EUR*
- **Chairperson Scientific Adv. Comm. Institute of Physics at the Uni. van Amsterdam** (2016-2017, Netherlands)
- **Flemish representative in the International Oversight and Finance Group of IceCube** (since 2014, NSF, USA)
- **Belgian delegate to the International Particle Physics Outreach Group** (2006-2014)

SELECTED SCIENTIFIC ACHIEVEMENTS (in ALEPH, DELPHI, CMS experiments)

- **Promoter of 20 PhD students and 13 master students**
several winning international awards (two won a CMS Thesis Award) and as a team we mostly worked on Tracker construction and operational aspects, cosmic ray studies, alignment and calibration, Tracker DQM, production of MC simulation, triggers, MadGraph deployment, electron, jet and b-tagging reconstruction, top quark physics and related searched for new physics phenomena, and phenomenology studies at colliders
- **Key contributions in CMS for measurements in the top quark sector**
amongst others: initiated kinematic fitting, top quark mass and first cross sections measurements, novel multi-channel searches for 4th generation quarks and vector-like quarks with world’s best limits, initiated the use of top quarks to calibrate b-tagging performance and jet energy scale, new search strategy for top-squarks, first time application of Matrix Element Methods to measure top quark helicities, searches for FCNC top quark couplings with Z and H bosons
- **Key contributions in ALEPH and DELPHI for the measurements of the W boson**
amongst others: mass and width measurement with full LEP2 data using kinematic fitting and ideogram methods, invented novel methods to measure colour reconnection, invented novel methods to reduce the overall uncertainty on the W boson mass measurement, first tuning on LEP1 data of fragmentation models including Bose-Einstein correlations
- **Above 250 presentations** *at conferences, workshops, seminars, and international meetings*
- **Co-author of more than 100 internal publications** *in large international collaborations*
- **Member of the LEP Electroweak Working Group**, *combination of Z and W boson results at LEP*
- **Convener of the Standard Model Handles and Candles Working Group** (Les Houches, 2007)

SELECTED ASPECTS IN SCIENCE EDUCATION, COMMUNICATION AND VALORISATION

- **Frequently invited for outreach talks**, *150+ presentations on science for the general public*
- **Extensive experience with media**, *100+ media appearances (television, radio, national newspapers)*
- **Extensive experience with VIP visits at CMS**, e.g. *royalties, ministers, heads of universities*
- **Keynote talks at academic, career, outreach and political events, debates, academic openings, ...**
- **President of the Education Council** (2013-2015, Faculty of Science and Bio-engineering, VUB)
- **Lecturer of ~10 different undergraduate courses and several courses at doctoral schools**
- **Member of several PhD committees**, *local, national and international*
- **Organiser of prize-winning workshops on Quantum Physics for children**

SELECTED INITIATIVES FOR THE ORGANISATION OF SCIENTIFIC EVENTS

- **Initiator of the Joint APPEC-ECFA-NuPECC Seminar series** (first at Orsay, France, 2019, ~230 participants)
- **Member local organising committee of the EPS-HEP conference** in Gent (Belgium, 2019, ~800 participants)
- **Local co-organiser of the Future Circular Collider (FCC) week** in Brussels (Belgium, 2019, ~450 participants)
- **Local co-organiser of the CERN School of Computing** in SCK-CEN, Mol (Belgium, 2016, ~60 participants)
- **Organiser of the CMS Week in Brussels** (Belgium, 2011, ~350 participants)
- **Organiser of the International Top Quark Conference** in Bruges (Belgium, 2010, ~130 participants)
- **Member of 20+ organising, program or advisory committees of international conferences/workshops**