CURRICULUM VITÆ

PERSONAL DETAILS

Title(s)	Prof.dr
Name	Johannes F.J. van den Brand
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BRIEF SUMMARY OF RESEARCH

Prof.dr. Jo van den Brand is director of the Subatomic Physics group at VU University Amsterdam (since 1996) and specializes in nuclear, particle and astroparticle physics.

In the early 1990s he was active in electron scattering experiments at Stanford Linear Accelerator Center (SLAC) that addressed color transparency and virtual Compton scattering. He was spokesman of BLAST at MIT-Bates (with Prof. Milner, MIT), and carried out the world's first fully polarized internal target experiment (CE25) at the Indiana University Cooler Facility.

In the 1990s he was involved in the HERMES collaboration at DESY, an experiment at HERA to determine the contribution of the various quark flavors and gluons to the nucleon spin. He was the leader of the Dutch participation and he was spokesperson of HERMES during start-up and first measurements (1994-1995).

Until 2000 he directed the nuclear spin-physics program at the Amsterdam Pulse Stretcher (AmPS) facility at Nikhef. AmPS was the first storage ring where longitudinal polarization of electrons was maintained by a Siberian snake and the stored electrons were scattered from polarized targets. He realized polarized hydrogen, deuterium and Helium-3 internal targets. The measurement of the charge form factor of the neutron is the best cited work carried out with Nikhef's local accelerator.

From 2000 (until 2012) he was member of the LHCb experiment at CERN to study CP violation in the decay of B mesons, and to determine elements of the CKM matrix (relation between mass and electroweak eigenstates). As leader of the LHCb/FOM program he was the driving force of the Dutch contributions to the collaboration. He was LHCb project leader of the VELO detector (2001–2005), one of the most advanced silicon vertex detectors.

He initiated and directed Nikhef's gravitational physics program. His group has made crucial instrumentation contributions to the Virgo experiment near Pisa, while in parallel carrying out a systematic study in a Bayesian framework of model independent tests of the validity of General Relativity by using gravitational-wave events. In this field, his group was the leading one in the world. He was member of the Detection Committee of the LIGO Virgo Collaboration that validated the first groundbreaking observation of gravitational waves from a binary black hole merger. He is co-initiator of Einstein Telescope, a third generation gravitational observatory. He is member of both the Program Advisory Board of KAGRA in Japan and the Scientific Advisory Committee of the Astroparticle Physics European Consortium ApPEC. At present he is spokesperson of the Virgo Collaboration.

KEY PUBLICATIONS

B.P. Abbott *et al*., *Observation of Gravitational Waves from a Binary Black Hole Merger*. By LIGO Scientific Collaboration and Virgo Collaboration, Phys. Rev. Lett. 116 (2016) 061102. e-Print: arXiv:1602.03837 (1761 citations)

A.A. Alves *et al*., *The LHCb Detector at the LHC*, Journal of Instrumentation, 2008, VOL. 3, PG. S08005 - S08005 (2186 citations)

J. Abadie *et al*., *Predictions for the Rates of Compact Binary Coalescences Observable by Ground-based Gravitational-wave Detectors.* By LIGO Scientific Collaboration and Virgo Collaboration, Class. Quant. Grav. 27 (2010) 173001. e-Print: arXiv:0909.3583 (745 citations)

R. Aaij *et al*., *First Evidence for the Decay* $B_s \rightarrow \mu^+\mu^-$, LHCb Collaboration, Phys. Rev. Lett. 110 (2013) 021801. e-Print: arXiv:1211.2674 (440 citations)

K. Ackerstaff *et al., Measurement of the neutron spin structure function g1(n) with a polarized He-3 internal target*. Phys. Lett. B404:383-389,1997 (362 citations)

I. Passchier *et al., The Charge form-factor of the neutron from the reaction polarized H-2(polarized e, e-prime n) p*. Phys.Rev.Lett.82:4988-4991, 1999 (215 citations)

According to inSPIRE, Prof. Van den Brand (co-)authored 423 scientific papers in peer reviewed journals with 32,356 citations in total, with an average of 77 citations per paper, and he has an h-index of 92. Google Scholar lists a total of 47,525 citations and h = 101.

EDUCATION / POSITIONS

2009 – 2014	Committee supervising quality of Honors Program, VU University Amsterdam
1996 –	Professor of physics, VU University Amsterdam
1993 – 1998	Extraordinary professor, Universiteit van Amsterdam
1993 – 2000	Senior staff scientist, Nikhef – National Institute for Subatomic Physics, Amsterdam
1993 – 1998	Associate professor, University of Wisconsin (tenured)
1990 – 1993	Assistant professor, University of Wisconsin – Madison
1989 – 1990	Research associate, MIT
1984 – 1988	Research assistant, Universiteit van Amsterdam
	PhD thesis: nucleon momentum distributions in 4He.
1979 – 1984	Head of department for Special Technologies, Nikhef, Amsterdam

AWARDS

Physica Prize of The Netherlands' Physical Society 2017
Gruber Cosmology Prize 2016
Special Breakthrough Prize in Fundamental Physics 2016
FOM Valorisation Award 2015

KEY PRIVATE EQUITY POSITIONS

2013 –	Partner in Innoseis BV
1999 –	Owner of Madison Engineering BV and Acies Holding BV