

Curriculum Vitae

Eugenio Nappi

Date of birth:

September 21, 1957, Italy

Nationality: Italian

Social status: married, two children

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Address :

INFN Headquarters

Piazza dei Caprettari, 70

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Italy

Present position:

Member of the Executive Board of INFN

Professional experience:

Dr. E. Nappi studied physics at the University of Bari. He completed his higher education in 1981 with a thesis in experimental particle physics on the measurement of direct photon production with high transverse momentum in hadron-hadron collisions at the CERN-SPS NA24 experiment. In 1983, he became a staff researcher at the INFN and, since 2002, he is Director of Research.

Former director of the INFN Unit of Bari from 2006 to 2012, he was elected member of the INFN Executive Board, for a term of four years, in February 2012.

His scientific activity has been carried out primarily at CERN and DESY (Germany). Collaboration with USA groups at BNL (Brookhaven) and TJNAF Laboratory (Virginia) has fruitfully been established in the last years. Since the beginning of his career, he has had a keen interest in the experimental aspects of CERN's physics programme of ultra-relativistic collisions of heavy ions. In this field, devoted to the study of the hot and dense medium formed by the coalescence of hundreds of protons and neutrons, he has been active in the NA35, WA97 and NA57 experiments at the SPS and, subsequently, in the conception and development of the ALICE experiment at the LHC.

During the eighteen years spent in ALICE, he has occupied the highest managerial positions; he has been member of the Management Board of ALICE since 1998, year in which he was the recipient of a two-year scientific associateship at CERN to serve the experiment as deputy-spokesperson. In this role, he played leading responsibilities and the coordination of the international teams involved in the editing of the Technical Design Reports of the ALICE sub-systems.

At the end of his mandate, in 2000, he became the project leader of the Cherenkov system, named HMPID (High Momentum Particle Identification Detector), devoted to the identification of charged hadrons with a transverse momentum above 1 GeV/c. His term of office covered the full construction phase until the installation in the experiment, which successfully came into operation in September 2006. HMPID is the largest CsI Ring Imaging Cherenkov detector (RICH) so far built in the world. The CsI photocathode development carried out under his

responsibility paved the way for the approval and construction of other large CsI RICH devices, such as those for the COMPASS and TJNAF-Hall A experiments.

In 2000, he joined the HERMES experiment at HERA-DESY, designed to study, through deep inelastic scatterings, the spin structure of the proton (or neutron). In HERMES, he drove the design of the first aerogel radiator RICH detector ever built in the world and, for related activities, he was the recipient of a grant (RII-CT-2004-506078-JRA9) from EC-FP6 call.

Few years ago, he conveyed his interest towards the medical imaging, which led him to join the AXPET collaboration at CERN whose aim is to develop an R&D program focused on a novel geometrical concept of a Positron Emission Tomography (PET) featuring a parallax-free 3D reconstruction of the positron source distribution with high spatial and energy resolution over the complete Field of View. He chaired the Institute Board of the AXPET project until 2012.

As director at the INFN Unit of Bari, he gained additional managerial experience and established many international contacts. The Bari Unit of INFN supports research in nuclear, particle and astroparticle physics, with about 70 staff (researchers, administrators, engineers, technicians) and about 130 associates (mainly university professors).

As member of the Executive Board of INFN, he supervises the INFN activities in the field of Nuclear Physics and represents the Italian Ministry of Education and Research (MIUR) in the European Spallation Source (ESS) STC board.

Conscious of the importance of education and communication, he has been particularly attentive to the training of young people. His achievements also include the development of postgraduate education in detector physics and innovative technologies and a number of successful industrial collaborations with hi-tech commercial partners. Moreover, he has launched a successful series of lectures and hands-on laboratory sessions on innovative nuclear instrumentations devoted to INFN researchers and engineers.

He is authors and co-authors of more than 250 papers published in international journals with peer-reviewing and he is referee of scientific journals and member of International Scientific Advisory Committees and Organizing Committee in several Conferences and Workshops on Nuclear Physics instrumentation (see the list below).

Teaching experience

- Undergraduate and graduate courses at the Universities of Bari and Rome Tor Vergata;
- VIII International ICFA School, Istanbul (July, 1999);
- International School on Nuclear Physics, Joliot-Curie, Maubuisson (Francia) (September 2001);
- First School on instrumentation 18-29 November 2002 Morelia (Mexico)
- Fermi School on Strangeness in Nuclear Physics, June 2007, Varenna (Italy)

Thesis Advisor of 12 master and 6 PhD thesis and postgraduated-scholar sponsor of two grants. Member of the Doctoral Committee of PhD thesis in Italy and France (University Paris XI, Orsay in 2000 and University Claude Bernard, Lyon in 2001).

Membership in International Scientific Committees

- Representative of INFN in NuPECC since 2009.
- Representative of INFN in Plenary ECFA since 2008.
- Collaboration Board of the ALICE experiment.
- Technical Board of the ALICE experiment.
- Chair of the Institute Board of the AXPET project until 2012.
- Steering Committee of EC-project HP2.
- Steering Committee of EC-project HP3.
- ICFA panel on Instrumentation since 2011.
- CST of CNRS-IPN Orsay since 2012.
- Deputy-chair of the ECE (Expert Committee for the Experiments) of FAIR, Darmstadt, since 2012.
- Steering Committee of the European Spallation Source Project since 2012.

Journal reviewer

- "Nuclear Instrument and Methods in Physics Research, Section A" by North- Holland since 1996.
- IEEE - Transaction in Nuclear Science (TNS) since 2000.
- JINST, since 2009

Journal editor

- EPJ-Plus (Editor-in-chief, since January 2013)
- NPN (Nuclear Physics News)

Advisor

- "Fund for Scientific Research" Flanders (Belgium) in 1999.
- ETH, Zurich (Switzerland) in 2006.
- Israel Science Foundation in 2009.
- STFC (UK) in 2011.
- FCT (Portugal) in 2012.
- European Research Council: Consolidator Grant Call in 2013.

Editorial activities

- Proceedings "Experimental Techniques of Cherenkov Light Imaging", (ISSN 0168-9002), published by North-Holland in 1994.
- QCD@WORK Proceedings.
- Technical Design Report CERN/LHCC 98-19 "Detector for High Momentum PID", ISBN 92-9083-134-0
- Innovative detectors for supercolliders, ISBN 981-238-745-5, published by World Scientific.

Membership in International Scientific Advisory Committees of Workshops and Conferences

- Eight editions of the International Workshop on RICH detectors (1993, 1995, 1998, 2002, 2005, 2007, 2010, 2013).

- Six editions of the International Conference on New Development in Photo-detection, Beaune, France (1996, 1999, 2002, 2005), Aix-les-Bain, France (2008), Lyon (2011).
- VI, VII, VIII, IX, X, XI and XII International Conference on "Advanced Technology and Particle Physics", Villa Olmo, Italy, (1998, 2001, 2004, 2007, 2009, 2011, 2013).
- Topical symposium on Functional Breast Imaging with Advanced Detectors, Rome, Italy 2001.
- Chairman of the VI, VII and VIII International Workshops on RICH detectors, Trieste, Italy 2007, Cassis, France 2010 and Kanagawa, Japan 2013, respectively.
- EuNPC 2012

Scientific Event Organizer

- 1st International Workshop on RICH detectors, Bari, Italy 1993.
- International conferences on QCD (QCD@WORK), five editions so far (2001, 2003, 2005, 2007, 2010).
- Workshop on Innovative detectors for supercolliders, Erice, Italy, 28 Sept-4 Oct. 2003.
- IWASI 2007, 2nd IEEE International Workshop on advances in sensors and interfaces, 26-27 June 2007, Bari, Italy.
- IWASI 2009, 3rd IEEE International Workshop on advances in sensors and interfaces, 25-26 June 2009, Trani, Italy.
- IWASI 2011, 4th IEEE International Workshop on advances in sensors and interfaces, 27-28 June 2011, Savelletri, Italy.
- IWASI 2013, 5th IEEE International Workshop on advances in sensors and interfaces, 13-14 June 2013, Bari, Italy.
- Fermi School, "From the Big Bang to the nucleosynthesis", Varenna, July 2010.
- INPC 2013 (Florence).

International Research Grants

- INTAS, CERN Call 2000 #350 "Design and construction of the support structure and of a system for storing CsI photocathodes for the High Momentum Particle Identification (HMPID) detector at ALICE
- INTAS, CERN Call 2005 # 103, Project 7544. "Development of a Cherenkov detector to extend the PID capability of ALICE beyond 5 GeV/c"
- EC FP6 Call n. RII-CT-2004-506078 ("HadronPhysics") – JRA9

Book and Monograph authorship

- Book title: Imaging gaseous detectors and their applications,
Publisher: Wiley-VCH; ISBN-10: 3527408983
Authors: Eugenio Nappi and Vladimir Peskov;
- Monograph title: Ring Imaging Cherenkov Detectors: The state of the art and perspectives,
Publisher: RIVISTA DEL NUOVO CIMENTO Vol. 28, N. 8-9 2005
Authors: Eugenio Nappi and Jacques Seguinot.