europass Curriculum vitae

PERSONAL INFORMATION

Stefano Forte

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PERSONAL SKILLS

Mother tongue(s): Italian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	C2	C2	C2	C2	C2
German	C1	C2	B2	B2	B2
Spanish	C2	C2	C1	B2	B2
Catalan/Valencian	C1	C1	B1	B1	A2
Dutch	A2	A2	A1	A1	A1
Portuguese	B1	B2	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

ANNEXES

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Curriculum Vitae

Stefano Forte, born June 21, 1961 in Milano (Italy)
ORCID: 0000-0002-5848-5907; Researcher ID: F-3362-2015; SCOPUS ID: 7005972872
Web site: `http://wwwteor.mi.infn.it/~forte/`

Education

Ph.D. in Physics; Massachusetts Institute of Technology, Cambridge, MA, U.S.A., July 1987
Laurea in Fisica *cum laude*; Università di Torino, Italy, July 1984

Permanent positions

full professor of theoretical physics at the University of Milan: 2003–to date
senior research physicist, Istituto Nazionale di Fisica Nucleare, sezione di Roma III, Italy: 1998–2002
senior research physicist, Istituto Nazionale di Fisica Nucleare, sezione di Torino, Italy: 1996–1998
research physicist, Istituto Nazionale di Fisica Nucleare, sezione di Torino, Italy: 1989–1996

Post–doctoral positions

Fellow, CERN Theory division, 1993–1995
Postdoctoral Fellow, Service de Physique Théorique, CEN Saclay (France) 1989–1990

Visiting positions

Lagrange Fellow Université Pierre et Marie Curie, Paris, (2015-2016)
Visiting Lecturer École Normale Supérieure de Lyon (2008 and 2011)
PPARC Visiting Scientist, University of Edinburgh (1999-2001 and 2004-2007)
CNRS Visiting Scientist, École Polytechnique, Paris (2003)
Visiting Professor, (IBERDROLA chair) Universitat de Barcelona (1997-1998)

Main Grants

PI of the Milan unit for the INFN rolling grants (RT21: 2003-2013 and WSIP:2014-2016)
PI of the Milan unit for the National PRIN grants 2004-2006; 2007-2009; 2013-2016
PI of the Milan unit and *National PI* in 2012 for a National PRIN grants 2010-2012
PI for an ERC Advanced Grant 2017-2022

Research management and evaluation

Member of the National Italian habilitation committee for Theoretical Physics professorships (2017-2018)
Vice-Chairman of the general review board of Milan University (2010-2015)
Member of the quality assessment committee of Milan University (2017-2018)
Member of the PS-SPS scientific committee of CERN February 2001–January 2005
Evaluator for the German DFG Reserach Agency (2017, 2018), the British SFTC (2008, 2013), the Israel Science foundation (2003, 2008, 2009, 2010), the French National Research Agency (2012, 2014, 2017), the Polish Academy of Sciences (2013), the Czech Academy of Sciences (2012), the National Italian Research Assessment (CIVR, 2005; VQR, 2013-2014, 2016) and for various Italian national grant programs (PRIN, FARE, FIRB, Fellini, etc., 2005-to date)

Chairman of the national selection committee for postdoctoral fellowships in theoretical physics of the Italian National Institute of Nuclear Physics (INFN) (2004), *Member* of the same committee (2008),
Member of the national selection committee for early-stage research fellowships of the Italian National Institute of Nuclear Physics (INFN) (2001), *Chairman* of the selection committee for postdoctoral fellowships of the Milan unit of the Italian National Institute of Nuclear Physics (INFN) (2013-2014), *Member* of the selection committee for associate and full professor positions in the universities of Bari, Naples, Milan-Bicocca, Turin, Rome (Roma Tre and La Sapienza), Padua and SISSA (Trieste), (2014-2018), *Member* of the selection committee for a professor position, Unversité Pierre et Marie Curie, Paris, France (2015).

Research planning

Member of the steering committee of the PDF4LHC working group (2008-to date)
Member of the International Avisory Board for the future accelerator LHeC (2016-to date)
Convener of the gluon fusion subgroup for the CERN Higgs working group (2014-2017)
Convener for parton distributions of the CERN Higgs working group (2010-2017)
Member of the steering committee for the future accelerator LHeC (2007-2016)
Convener of the HERALHC workshop (2004-2008)
Member of the scientific advisory committee for "Future Physics @ COMPASS" (2002)
Member of the advisory committee for "Physics with Polarized Protons at HERA" (1997)
Member NuPECC-DESY-GSI committee "Future of Electron-Nucleus Collisions" (1997)

Membership in committees of international conferences

Higgs Couplings conference series: *member of the international advisory committee* since 2015
Deep-inelastic scattering conference series: *member of the scientific committee* since 2012

Memberships to editorial boards of international journals and book series

The European Journal of Physics C, *associate editor and member of the editorial board* since 2015
Journal of Physics G: *member of the editorial board* since 2014
UNITEX Physics and Astronomy textbook series; Springer: *member of the editorial board* since 2005

Prizes, Awards, Memberships

Scientific Associate, The DISCOVERY centre; The Niels Bohr Institute; University of Copenhagen, 2010-to date
Scientific Associate, The Higgs Institute; Edinburgh University, 2013-to date

Departmental and University Duties

Member of the directorate board, Physics graduate school, 2009 - to date
Head of outreach committee, Dept. of Physics, 2006-2011
Member of the Physics grant and fellowship board of Milan U., 2004-2010

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Bibliometric data

	cit.	cit./pap.	h	500+	250+	100+
all times, all papers	18631	91.8	63	8	7	29
all times, published	11674	93.4	53	3	6	23
last 10 years, all papers	13623	170.3	41	8	6	12
last 10 years, published	7492	149.8	33	3	5	8

Total citations, citations per paper, h index, number of papers with more than 500, less than 500 but more than 250 and less than 250 but more than 100 cites (data obtained from the inSPIRE database on November 26, 2018)

Main research results

I have produced very high impact work in the field of PDFs, notably as a leader of the NNPDF collaboration: 44 papers with more than 100 citations (out of which seven with more than 250, and eight more with more than 500), mostly published during the last 10 years. High impact work with smaller groups of collaborators includes various aspects of perturbative QCD, specifically, high-energy resummation, to which I have given seminal contributions since the mid-nineties until now and Higgs physics. I also co-authored the first quantitative cost-benefit analysis of a fundamental research infrastructure. Earlier results include: seminal studies of neutrino deep-inelastic scattering; the discovery of double-asymptotic scaling at HERA; seminal and still widely cited results on the proton spin, including the first (and still competitive) determination of the polarized gluon content of the proton and the explanation of the proton spin puzzle based on instantons; and the formulation of relativistic field theory for anyons.

Some selected publications

[1] R. D. Ball *et al.* [NNPDF Collaboration]*, "Parton distributions from high-precision collider data," Eur. Phys. J. C **77** (2017) no.10, 663 **164 cit.**

[2] F. Caola, S. Forte, S. Marzani, C. Muselli and G. Vita, "The Higgs transverse momentum spectrum with finite quark masses beyond leading order," JHEP **1608** (2016) 150; **34 cit.**

[3] M. Florio, S. Forte and E. Sirtori, "Forecasting the Socio-Economic Impact of the Large Hadron Collider: a Cost-Benefit Analysis to 2025 and Beyond," Techn. For. and Soc. Change **112** (2016) 38;

[4] R. D. Ball *et al.* [NNPDF Collaboration]*, "Parton distributions for the LHC Run II," JHEP **1504** (2015) 040; **1363 cit.**

[5] E. R. Nocera *et al.* [NNPDF Collaboration]*, "A first unbiased global determination of polarized PDFs and their uncertainties," Nucl. Phys. B **887** (2014) 276; **149 cit.**

[6] R. D. Ball *et al.* [NNPDF Collaboration]*, "Parton distributions with QED corrections," Nucl. Phys. B **877** (2013) 290; **341 cit.**

[7] R. D. Ball, M. Bonvini, S. Forte, S. Marzani and G. Ridolfi, "Higgs production in gluon fusion beyond NNLO," Nucl. Phys. B **874** (2013) 746; **98 cit.**

[8] S. Forte and G. Watt, "Progress in the Determination of the Partonic Structure of the Proton," Ann. Rev. Nucl. Part. Sci. **63** (2013) 291; **119 cit.**

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[9] R. D. Ball *et al.* [NNPDF Collaboration]*, "Parton distributions with LHC data," Nucl. Phys. B **867** (2013) 244; **1198 cit.**
[10] S. Forte, E. Laenen, P. Nason and J. Rojo, "Heavy quarks in deep-inelastic scattering," Nucl. Phys. B **834** (2010) 116; **176 cit.**
[11] S. Marzani, R. D. Ball, V. Del Duca, S. Forte and A. Vicini, "Higgs production via gluon-gluon fusion with finite top mass beyond next-to-leading order," Nucl. Phys. B **800** (2008) 127; **160 cit**.
[12] G. Altarelli, R. D. Ball and S. Forte, "Resummation of singlet parton evolution at small x," Nucl. Phys. B **575** (2000) 313; **131 cit**.
[13] R. D. Ball and S. Forte, Phys. Lett. B **335** (1994) 77; **190 cit**.
[14] S. Forte, "Quantum mechanics and field theory with fractional spin and statistics," Rev. Mod. Phys. **64** (1992) 193; **162 cit**.
[15] S. Forte, "Perturbative and Nonperturbative Anomalous Contributions to the Polarization of the Proton," Phys. Lett. B **224** (1989) 189; **100 cit.**
* *In all NNPDF papers I am corresponding author and spokesperson of the collaboration.*

Some recent invited talks
2018: Mass 2018 (Odense, Denmark): invited plenary talk; PSR 2018 (Lund, Sweden): invited opening talk; QCD@LHC (Dresden, Germany): invited plenary talk; Pushing the Boundaries Workshop (Durham, UK): invited talk; Machine Learning for Phenomenology (Durham, UK): invited talk.
2017: Maria Laach Summer School (Maria Laach, Germany): invited lecture course; Rencontres de Morion (La Thuile, Italy): invited talk; Rencontres de Blois (Blois, France): invited talk; Lattice 2017 (Granada, Spain): invited plenary talk; Scales 2017 (Cambridge, UK): invited talk.
2016: Karlsruher Graduiertenkolleg (Freudenstadt, Germany): invited lecture course; Resummation and parton showers (Paris, France): invited talk; Loopfest (Buffalo, NY, USA): invited talk; Future challenges for precision QCD (Durham, UK): invited review talk; SEARCH workshop (Oxford, UK): invited participant.
2015: DIS (Dallas, USA): conference opening talk; LHCP (St. Petersburg, Russia): plenary talk; Higgs Couplings (Lumley Castle, UK): invited talk; Higgs Hunting (Orsay, France): plenary talk.
2014: ICHEP (Valencia, Spain): convenor of QCD session; SM@LHC (Madrid): plenary talk; Higgs Couplings (Torino, Italy): invited talk.
2013: ISMD (Chicago): plenary talk; SEARCH workshop (Stony Brook U., USA): invited participant; BEAUTY (Bologna): plenary talk; Higgs Couplings (Freiburg, Germany): invited talk; Resummation and parton showers (Durham, UK): invited review talk.
2012: Gordon conference (Holderness, USA): plenary talk; Higgs-Maxwell meeting (Edinburgh): plenary talk; SEARCH workshop (Johns Hopkins U., USA): invited participant; Flavor physics (Capri, Italy): invited talk.
2011: PLHC (Perugia, Italy): plenary talk; PHYSTAT (CERN, Geneva): plenary talk; SM@LHC (Durham, UK): plenary talk.

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2010: DIS (Florence): plenary talk in opening session; ICHEP (Paris): invited minireview in parallel session; GLASMA workshop (Bookhaven, USA): plenary talk; Cracow school (Zakopane, Poland): invited lectures on QCD; CTEQ-MCNET school (Lauterbad, Germany): invited lectures.
In my capacity as a member of the steering committee of the future LHeC collider; as a PDF contact (since 2010) and subgroup convenor (since 2014) of the CERN Higgs Cross Section Working Group; and as a member of the Steering Committee of the PDF4LHC workshop, I have been regularly convening meetings and giving plenary and summary presentations at the corresponding workshop meetings:
`lhec.web.cern.ch/workshops` (LHeC);
`https://twiki.cern.ch/twiki/bin/view/LHCPhysics/LHCHXSWG` (Higgs WG);
`https://www.hep.ucl.ac.uk/pdf4lhc/meetings.shtml` (PDF4LHC).

Teaching and contributions to early career of excellent researchers

Since my inception as a full professor in Milan in 2003, I have been regularly teaching at the undergraduate and graduate level, also as a guest lecturer at École Normale Supérieure de Lyon (France) and educating a very large number of excellent researchers.
For several of these I have acted as a Masters' or PhD thesis adviser. These include in particular: Juan Rojo (PhD, assistant professor an VU Amsterdam, starting ERC grant recipient); Fabrizio Caola (PhD, lecturer at Durham U., recipient of the Altarelli award); Stefano Carrazza (PhD, assistant professor at Milan U.); Simone Marzani (Masters, assistant professor at Genoa U.); Maria Ubiali (Masters, lecturer and Fellow of Newnham College, Cambridge U, UK); Marco Bonvini (PhD, postdoc at Rome-La Sapienza); Emanuele Nocera (PhD, postdoc at NIKHEF); Zahari Kassabov (PhD, postod at Cambridge U.); Davide Napoletano (Masters, Postdoc at Saclay and Université Pierre et Marie Curie, France); Luca Rottoli (Masters, Postdoc at Milan-Bicocca U.); Marco Zaro (Masters, postdoc at NIKHEF, Amsterdam); Claudia Frugiuele (Masters, postdoc at the Weizmann Institute, Tel Aviv); Tiziano Peraro (Masters, postdoc at Mainz U); Margherita Ghezzi (Masters, postdoc at the Paul Scherrer Institut, Switzerland); Giovanni Diana (PhD, postdoc at King's college, London); Paola Ferrario (Masters, postdoc at DIPC, Spain); many others are still pursuing PhD studies or have left research (some after distinguished careers, such as Pietro Falgari, formerly at Aachen, Durham and Utrecht). While many are active in theoretical high-energy physics, and several (Rojo, Caola, Ubiali, Marzani, Carrazza, Bonvini, Nocera) still collaborate with me, others succesfully pursue research careers in fields ranging from biophysics (Diana) to experimental neutrino physics (Ferrario).

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