

Curriculum vitae

PERSONAL INFORMATION:

Family name:	GABRIELLI
First name:	Emidio
ORCID ID:	0000-0002-0637-5124
Nationality:	Italian

EDUCATION:

1991 –	PhD in Physics, Dept. of Physics, University of Rome “La Sapienza” Italy. Supervisor: Prof. Giancarlo Rossi
1986 –	Master in Physics, Dept. of Physics, University of Rome “La Sapienza”, Italy. Supervisor: Prof. Guido Altarelli

CURRENT POSITION

since 2018 – Associate Professor, Department of Physics, University of Trieste, Italy

PREVIOUS POSITIONS

2012 – 2018	Assistant Professor, Dept. of Physics, University of Trieste
2011 – 2014	Senior Research Scientist, NICPB, Tallinn, Estonia
2008 – 2011	Visiting Scientist, TH Division, CERN, Switzerland
2001 – 2002	Corresponding Scientific Associate (6 months), TH Division, CERN
2000 – 2007	Senior Research Scientist, Helsinki Institute of Physics, Finland
1997 – 2000	Postdoc, Dept. of Physics, Univ. Autonoma of Madrid, Spain
1996 – 1997	Postdoc, Dept. of Physics, Univ. of Notre-Dame, United States
1993 – 1995	Postdoc, Dept. of Physics, Univ. of Rome “La Sapienza”, Italy
1992 – 1993	Research Fellow, TH-Division, CERN, Switzerland

SHORT VISITING POSITIONS

2007 May-Jul	Visiting Researcher at Uppsala University, Dept. of Physics, Sweden
2007 Oct-Dec	Visiting Prof., Dept. of Physics, Louvain-La-Neuve University, Belgium
1996 Feb-May	Visiting Researcher at Southampton University, Dept. of Physics, UK

ACADEMIC QUALIFICATIONS:

2017 - 2026	Habilitation to Full Professor, Theoretical Physics, sector 02/A2, Italy
2014 - 2018	Habilitation to Full Professor, Particle Physics, section 29, France
2008 - 2012	Habilitation to Full Professor, Particle Physics, section 29, France
2007	Habilitation to Lecturer in Finland

FELLOWSHIPS AND AWARDS

2011 – 2015 Principal Investigator, Top Researcher Grant
 Funding: Estonian Science Foundation, Mobilitas Program
 Institution: NICPB, Tallinn, Estonia
 Grant: 544,000 Eur

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2014 – 2021 7 Master Students, Dept. of Physics, Univ. of Trieste
 2011 – 2014 1 PhD Student, Dept. of Physics, Univ. of Tartu, Estonia
 2011 – 2014 2 Postdocs, NICPB, Tallinn, Estonia
 2005 – 2007 1 PhD Student at Helsinki Institute of Physics, Finland

TEACHING ACTIVITIES

2019 – 2021 Master – topic: *Symmetries and Fundamental Interactions*,
 3-years, (48 h), Univ. of Trieste, Italy
 2017 – 2021 Master – topic: *Dynamics of Electro-Weak and Strong Interactions*,
 5-years (48 h), Univ. of Trieste
 2018 Master – topic: *Quantum Field Theory*,
 (48 h), Univ. of Trieste
 2014 – 2016 Master – topic: *Dynamics of Elementary Particles*,
 3-years (48 h), Univ. of Trieste
 2007 PhD – topic: *FCNC processes and CP violating phenomena*,
 (12 h), Univ. of Louvain-la-Neuve, Belgium
 2006 PhD – topic: *FCNC processes and CP violating phenomena*,
 (28 h), Univ. of Helsinki, Finland
 2005 PhD – topic: *Forward Physics at the LHC and Top Quark Physics*,
 (10 h), Univ. of Helsinki, Finland
 2002 – 2003 PhD – topic: *Phenomenology of the Standard Model and beyond*,
 2-years (30 h), Univ. of Helsinki, Finland
 1999 PhD – topic: *Phenomenology of the Weak and Strong interactions*,
 2-years (30 h), Univ. Autonoma of Madrid, Spain

ORGANIZATION OF SCIENTIFIC MEETINGS

2018 Organizer of Conf. : PACTS 2018, 18-22 June, Tallinn, Estonia
 2017 Chair of Conf. : IFAE 2017, 19-21 April, Trieste, Italy
 2007 Convener of Conf.: ILC Physics in Florence, 12-14 Sept., Florence, Italy

INSTITUTIONAL RESPONSABILITY

2014 – 2021 Faculty Member of Master Degree in Physics, Univ. of Trieste

REVIEWING ACTIVITIES

since 2017 – Scientific Advisory Board of IFAE
since 2021 – Review Panel Member of Rita Levi Montalcini Programme, Italy
2003 External assessor for promotions to Associate Professor,
University of Galway, Ireland

– Referee of Scientific Journals

since 2002 Nuclear Physics B; Physics Letters B
– 2004 Physical Review D
– 2007 Physical Review Letters
– 2012 International Journal of High Energy Physics
– 2015 Classical and Quantum Gravity; Journal of Physics G

RESEARCH RECORDS:

I have published so far about 83 peer-reviewed articles and 32 conference/workshop proceedings in the field of high energy physics, low energy physics, astro-particle physics, and quantum field theory. My research papers are published on high-level peer-reviewed journals. According to the InSPIRES database <http://inspirehep.net/>, my h -index is 35 on all papers. My scientific articles received so far more than about 6000 citations in total, with an average of about 61 citations per peer-reviewed article. I am the author of a renowned paper on phenomenological aspects of Supersymmetry, that has collected so far more than 1400 citations. Moreover, I have 4 papers with 100-200 citations, and 9 papers with 50-100 citations.

MAJOR RECENT COLLABORATIONS

M. Raidal and L. Marzola (NICPB, Tallinn, Estonia), S. Biswas (RKMVU, West Bengal, India), M. Casarsa (INFN, Trieste, Italy) B. Mele (Dept. of Physics, Univ. of Rome “La Sapienza”, Italy), M. Fabbrichesi (INFN, Trieste, Italy); Topic: New Physics beyond the SM, Dark sector.

Track Record (last 10 Years)

RESEARCH RECORDS

I am author of 48 research works published in the last 10 years, among which 39 are research articles published on peer-reviewed journals. The h -factor for this period is $h = 22$ and total number of citations 3179.

10 representative publications as co-author

(inside [...] the N. of citations)

- 1 “*The Dark Photon*”, SpringerBriefs in Physics 2020 (arXiv:2005.01515) [121]
- 2 “*Neutral Hadrons Disappearing into the Darkness*”, Phys.Rev. D 98 (2018) 035049 [37]
- 3 “*Z Boson Decay into Light and Darkness*”, Phys.Rev.Lett. 120 (2018) 171803 [15]
- 4 “*Hunting down massless dark photons in kaon physics*”, Phys.Rev.Lett. 119 (2017) 031801 [20]
- 5 “*Dark-Photon searches via Higgs-boson production at the LHC*”, Phys.Rev. D 93 (2016) 093011 [34]
- 6 “*A SUSY Inspired Simplified Model for the 750 GeV Diphoton Excess*”, Phys. Lett. B 756 (2016) 36, [121]
- 7 “*Towards Completing the Standard Model: Vacuum Stability, EWSB and Dark Matter*” Phys. Rev. D 89, (2014) 015017 [177]
- 8 “*Exponentially spread dynamical Yukawa couplings from nonperturbative chiral symmetry breaking in the dark sector*”, Phys. Rev. D 89 (2014) 015008 [34]
- 9 “*Direct constraints on the top-Higgs coupling from the 8 TeV LHC data*”, JHEP 1307 (2013) 073 [52]
- 10 “*Single top and Higgs associated production as a probe of the Htt coupling sign at the LHC*”, JHEP 01 (2013) 088 [96]

Invitation to Conference

1. LIO International Conference on Flavour Physics: "From Flavour to New Physics", IPNL, Lyon, France (2018)
2. Physics Beyond Colliders working group meeting, CERN (2017)
3. The 12th International Workshop: “The Dark Side of the Universe”, Bergen, Norway (2016)
4. FCC-ee (TLEP) Joint Accelerator Physics meeting, CERN (2015)
5. 37th International Conference on High Energy Physics, Valencia, Spain, (2014)
6. 9th b-physics Workshop LAPP Annecy, French-Italian meeting on the b-physics (2013)
7. “Dark matter in astro (particle) physics & cosmology”, CoE workshop, KBFI, Tallinn (2012)
8. International Workshop on Implications of LHC results for TeV-scale physics, CERN (2012)

9. LCWS11 International Workshop on future Linear Colliders, Granada, Spain (2011)
10. International Workshop on Implications of LHC results for TeV-scale physics, CERN (2011)

INTERNATIONAL PROJECTS UNDER OWN LEADERSHIP

As Principal Investigator

- **1.05.2011 - 31.07.2015** Ref. **MTT60** “Search for New Physics beyond the Standard Model and astrophysical implications”. Institution: NICPB, Estonia. Financed by: Estonian Research Council, Mobilitas programme.

As Team Member, coordinator at Trieste University

- **2017 – 2021** Ref. **TK133** “The Dark Side of the Universe”. Estonian Centre of Excellence. Financed by: European Regional Development Fund
- **2011 - 2015** Ref. **TK120** “Dark Matter in Astro(particle) Physics and Cosmology”, Estonian Centre of Excellence. Financed by: European Regional Development Fund

As Supervisor

- **2012 – 2015** Ref. **MJD435** “Researching physics within and beyond the Standard Model”, Estonian Research Council Mobilitas program.