



Egle Tomasi-Gustafsson

Curriculum Vitae

Skills

Phenomenology and experimentation in Nuclear and Hadron Physics managing experiments and organizing international teams, Modelization, Simulation of complex systems, Computing (Linux, Windows, Microsoft Office, Root, \LaTeX), Teaching, Students' supervision, Event organisation and planning, Mediation, Multi-lingual intercultural communication, Evaluation of scientific articles and projects, Adviser for recruitment and career development.

Present position

Leading researcher in fundamental physics, IRFU/DPhN, Commissariat à l'Energie Atomique (CEA), Saclay, France.

Education

1988 **Thèse d'Etat**, *Université Paris-Sud*, Orsay, France.

1975–1979 **Corso di Laurea in Fisica**, *Università degli Studi*, Padova, Italy.
Tesi di Laurea, 110/110 with honours.

Languages

Italian	Mothertongue	
French,English	Very good	<i>Written and spoken</i>
Swedish,German,	Intermediate	<i>Grammar and basic sentences</i>
Russian		

Awards

- 2011 Prize from International Academical NAUKA Interperiodica
- 2004 Best contribution at the XC meeting of the Italian Physical Society
- 2003 Honorary Diploma of JINR, Russia

Communication,Outreach

Talks at seminars, workshops and conferences. Defense of projects at evaluation committees and scientific councils. Lectures for high school, undergraduated and PhD students. Organization of visits at accelerator facilities for general public.

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Experience

Scientific Activity

1980–Present **Staff Physicists in hadron and nuclear physics**, *Commissariat à l’Energie Atomique (CEA)*, Saclay, France, Original results are reported in more than 250 peer reviewed articles, the scientific activity is presented in more than 300 talks in seminars, workshop and conferences.

Selected references:

- *Periodic interference structures in the timelike proton form factor* *Phys. Rev. Lett.* 114, 232301, 1-5 (2015).
- *Proton electromagnetic form factors: Basic notions, present achievements and future perspectives* *Phys. Rept.* 550-551, 1-103 (2015).

2012–Present **Spokesperson**, *ALPOMII experiment at Nuclotron*, Dubna, Russia, Development of new concepts of hadron polarimetry in the GeV energy range. Measurement of analyzing power of protons and neutrons. Proof of feasibility and optimization of JLab experiments.

Selected references:

- *Measurement of neutron and proton analyzing powers on C, CH, CH₂ and Cu targets in the momentum region 3-4.2 GeV/c* e-Print: *arXiv:1908.06159 [nucl-ex]*
- *Measurement of analyzing powers for the reaction $\vec{p} + CH_2$ at $p_p = 1.75\text{-GeV}/c - 5.3\text{-GeV}/c$;* *Nucl.Instrum.Meth.* A538 (2005) 431-441.

2008–2014 **Leading researcher**, *Institut de Physique Nucléaire d’Orsay*, CNRS, IN2P3, France, On leave of absence from CEA, developing a scientific program with antiproton beams for the PANDA experiment at FAIR,.

Selected references:

- *Proton-antiproton annihilation into massive leptons and polarization*, *Nucl. Phys.* A894 (2012) 20.
- *A Model for space and time-like hadron form factors*, *Phys. Lett.* B712 (2012) 240.

1998–2008 **Member of JLab T_{20} and JLab Collaborations**, *CEA/DSM/IRFU/DPhN*, Saclay, France, Member of the GEP and T20 experiments at Jefferson Laboratory (USA), phenomenology of scattering and annihilation processes.

Selected references:

- *Polarization Phenomena in Hadronic and Nuclear Processes in Threshold Regime*, *Phys. Part. Nucl.* 33, 220 (2002) (review report).
- *Recoil Polarization Measurements of the Proton Electromagnetic Form Factor Ratio to $Q^2 = 8.5\text{ GeV}^2$* [The GEP Collaboration], *Phys. Rev. Lett.* 104, 242301 (2010).

1988–1997 **Scientific Coordinator and researcher**, *Saturne National Laboratory*, France.

Spokesperson of experiments related to proton and deuteron polarimetry:

- LNS-135 measured the isoscalar spin strength in several nuclei [*Physics Report 289 (1997)*, 235-382] (Review article).
- LNS-291 built HYPOM, the first vector and tensor polarimeter for deuterons at energies of a few GeV [*Nucl. Instrum. Meth.* A420 (1999) 90].

1981–1988 **Researcher**, *CEA/IRF/DPhN/MF*, Saclay, France.

Participation and direction of experiments in the field of heavy ion reactions, at the Tandem and Cyclotron ALICE in Orsay, SARA (Grenoble), Heidelberg, Texas A& M, GANIL, developing macroscopical models for their theoretical interpretation

1980–1981 **Post-doc**, *Technische Universität*, München, Germany.

Radioactivity measurements in the group of Prof. H. Morinaga.

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Academic activity

- Supervision of diploma and master students, member of PhD committees, PhD Thesis and Post-docs as:
 - Jing Wang - PhD, 9-VII-2017, presently Post-doc, IHEP Beijing.
 - A. Dbeyssi - PhD, 27-IX-2013, presently at Helmholtz Institute Mainz, following a Junior Excellence Fellow.
 - C. Adamuscin (Saclay, 2006-2007, Bratislava 2008), (co-supervisor), presently staff at the Physics Department of the Slovak Academy of Sciences, Bratislava.
 - V. Ladygin (post-doc Saturne, 1995-1997), presently Staff Dubna JINR-VBLHE, responsible of a joint experiment CBM-Nuclotron.
- Teaching
 - Lecturer at PhD schools: 19th JINR-ISU Baikal school, Russia (2019), TES HEP LAL-Ukraine (2017,2015), 'N.Cabeo' School Ferrara (2011), Paris-Sud Orsay (2010), Università di Catania (2004).
 - Teacher assistant - Quantum and Statistical Mechanics, Université Paris-Sud, Orsay, France (1993-1995) and Numerical Analysis, Faculty of Engineering, Padova, Italy (1979-1980).

Nominations, Membership

- 2015-present **Leader**, *Research programs*, Université Paris-Saclay.
P2I Grants for exchange programs between France and Ukraine and workshops organization.
- 2011-2013 **Evaluator**, *European Agencies*.
Evaluator for the European programme 'FP7-People' (2013), European Commission, (Bruxelles) and for research proposals of the Italian INFN and of the Swiss FNS.
- 2009-2012 **Chair**, *Programme Advisory Committees for Particle Physics*, JINR, Dubna, Russia.
Member since 1999, this Committee reviews the particle physics projects of the Joint Institute, inland and abroad, and advises the Directorate.
- 2008-2015 **Convener**, *Groupement de Recherche 'GDR-PH-QCD'*, France.
Organisation of meetings and analysis for the *Groupe II: scattering and annihilation reactions*.
- 1998-present **Member**, *International Advisory Committees*.
Organisation and advice for several (recurrent) international conferences and events: *International Seminar on High Energy Physics Problems*, Dubna, (Russia), *International Conference on Nuclear Reaction Mechanisms* Varenna, Italy, *PhD School 'Nicolo Cabeo'*, Ferrara, *International Workshop on e^+e^- collisions from Phi to Psi*, main organiser of the *Workshop on Scattering and annihilation processes*, at ECT*, Trento (2013).
- 2008-2015 **Leader**, *Research programs*, France.
Responsible of a bilateral agreement JINR (Dubna)-IN2P3 and of a Cooperation agreement between CNRS and NSC-KFTI (Kharkov).
- 2011-2012 **Chair**, *PANDA Speakers' Committee*, GSI.
Vice-Chair 2011 and Chair 2012, this committee suggests, scrutinizes and classifies the talks of the collaborations in the world conferences.
- 2004-2008 **Elected member**, *CNRS Committee*, Paris, France.
Evaluation of the laboratories and the staff, recruitment for the Section 'Nuclear, Particle Physics and Astrophysics.
- 1991-1997 **Scientific Coordinator**, *Laboratoire National Saturne*, France.
Member of the *Comité de Direction*, *Comité des Expériences*, *Conseil Scientifique*, *User's bureau*, editor of the internal magazine *En bref de Saturne*, and of the *Annual Report*.

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