

Edoardo Milotti

Birthplace: Trieste, Italy
Birthdate: April 14th 1958
Status: married, with a daughter and a son

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Present position

Position Full Professor
Address Department of Physics, University of Trieste
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Education and experience

1977 High school diploma with the highest marks (60/60)
1982 Degree (Laurea) in Physics at the University of Trieste with the highest marks (110/110 cum laude)
1983 PhD study grant at the International School for Advanced Studies (ISAS, SISSA Trieste)
1984 after having passed all the exams of the first year at ISAS, I held a temporary position at the Max-Planck-Institut für Physik u. Astrophysik in Munich; in the same year I was granted a fellowship at CERN, but finally I opted for the position at the Max-Planck-Inst.
1986-1987 permanent research position at the Italian Institute for Nuclear Physics (INFN)
1987-1999 permanent position as assistant professor at the University of Trieste
1999-2005 associate professor at the University of Udine
2005-2013 associate professor at the University of Trieste
2010 "habilitation" ("idoneità") to full professorship
2015-present full professor at the University of Trieste

Current scientific responsibilities

2023-present Co-chair of the Burst All-sky subgroup of the LIGO/Virgo/KAGRA Collaboration

Other responsibilities

1990's I collaborated with LIS (Laboratorio dell'Immaginario Scientifico), a hands-on science museum in Trieste, where I also gave seminars addressed to science teachers.
1992-1996 PI of MUH (experiment to detect the QED corrections to the energy levels of muonic atoms, with grants from INFN)
1993-1998 I held training sessions on experimental physics for the Italian student teams that participated to the International Physics Olympiads.
1998 I wrote a fixed column on mathematical games in the monthly magazine "Scienza Nuova", which was the Italian edition of "New Scientist".
1999 I was one of the five members of the committee that prepared problems and tests, and I actively collaborated to the organization of the 30th International Physics Olympiad in Padua.
2001-2003 local coordinator of the PRIN 2001 project "Development of event simulation and visualization software for the orbiting observatory GLAST" (now called Fermi) at the Phys. Dept. of the University of Udine
2002-2014 PI of several initiatives in the field of biophysics (Virtus, VBL, VBL-Rad, and now eBON, Meridian) with grants from the Commissione 5 – INFN
2006 chairman of the INFN commission that awards grants to young foreign experimental physicists
2006-2012 local coordinator for INFN-group 2 (astroparticle and particle physics without accelerators) in Trieste and Udine
2006-2013 member of the executive board of the Department of Physics of the University of Trieste

2007	member of the selection commission for a permanent research position in the Physics Dept. of the University of Siena
2008	chairperson of the local organizing committee of the workshop "Theoretical and experimental aspects of the spin-statistics connection and related symmetries", held in Trieste in october 2008 (web page: http://www.ts.infn.it/eventi/spinstat2008/)
2008-present	member of the Interdepartmental Center for Computational Science (CISC) at the University of Trieste
2010	PI of HPC project related to VBL at the CINECA HPC center (C type grant 2010)
2010	PI of HPC project related to VBL at the CASPUR HPC center (standard HPC grant 2010)
2010-2012	member of the teaching committee of the PhD course in Applied Biotechnology of the University of Verona
2011	PI of HPC project related to eBON at the CASPUR HPC center (standard HPC grant 2011)
2011	PI of HPC project related to eBON at the CASPUR HPC center (GPU grant 2011)
2011	member of the local organizing committee of the workshop "Speakable in quantum mechanics: atomic, nuclear and subnuclear physics tests", held at ECT* Trento
2011-2013	PI of the PRIN-2009 project "Numerical simulation of tumor spheroids"
2012	PI of HPC project related to eBON at the CASPUR HPC center (standard HPC grant 2012)
2012-2014	member of the teaching committee of the PhD course in Physics of the University of Trieste
2014-2018	coordinator of the Interdepartmental Center for Computational Science (CISC) at the University of Trieste
2014-2023	member of the Board of the Master of Advanced Studies in Medical Physics at the University of Trieste
2016-2021	member of the Commission for the Evaluation of Research (CVR) at the University of Trieste
2017-2023	member of the advisory board at the Department of Physics of the University of Trieste
2018-2021	president of the Commission for the Evaluation of Research (CVR) at the University of Trieste
2018-2021	director of the Consortium for Physics (https://consorzio-fisica-trieste.it)
2019-2023	member of the User Selection Panel for the transnational access to the INFN Frascati National Laboratory, in the framework of the STRONG-2020 Project
2020-present	board member of the PhD course in Physics of the University of Trieste
2021-present	member of the Evaluation Committee (Nucleo di Valutazione) of the University of Trieste

Reviewer

I am active as reviewer for both scientific journals and funding agencies

Journals	Physical Review; Physical Review Letters; Europhysics Letters; Journal of Theoretical Biology; Computer Physics Communications; Nuclear Instruments and Methods; Physica A; Solid-state Electronics; American Journal of Physics; Review of Scientific Instruments; Cancer Research; Astrophysical Journal; Chemical Physics; Frontiers in Physics; Computers in Physics and Engineering; IEEE Transactions on Computational Biology and Informatics
Funding agencies	INFN; IEEE; German-Israeli Foundation for scientific research and development (GIF); l'Agence National de la Recherche; ERC; ISCRA
Other	Deutscher Akademischer Austauschdienst

Current research interests

Experimental Gravitation (Gravitational Waves, currently member of the Virgo Collaboration)

Stochastic processes in physics

Past research achievements

1988	I contributed to the successful completion of the construction of the Time Projection Chamber (TPC) of the ALEPH experiment at LEP (CERN); this was the then largest TPC in the world.
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	I have given important contributions to the design, testing and construction of the chamber. At the time, ALEPH was led by the Nobel-prizewinner Jack Steinberger
1992	I have contributed to the all-new design of an experiment to measure the properties of muonic hydrogen (MUH)
1994	I have successfully connected the presence of the ubiquitous $1/f$ noise to the boundary conditions of common conductors
1998	I have proposed and put forward the main ideas at the basis of the VIP experiment, which eventually made it into the most precise test to-date of the Pauli Exclusion Principle for electrons
2001	together with Roberto Chignola, I have proposed a new and original numerical model of tumor growth. Developing the model is a difficult and ambitious task, and although we have obtained many interesting results over the years, the model can still be extended in countless ways, and our work continues to this day
2012	I have proposed a novel scheme for a gamma-gamma collider to test the predictions of Quantum Electrodynamics and the proposal was initially incorporated in the larger IRIDE project.

Awards

1985	recipient of prize for young physicists of the Italian Physical Society (SIF)
2006	recipient of prize for best paper at the ANIPLA conference (Associazione Italiana Per L'Automazione) (topic: growth of solid tumors)

Publications and bibliometrics

Papers I published more than 240 refereed papers; the list can be accessed on my personal website <http://www.ts.infn.it/~milotti/Papers.html>, see also the INSPIRE website

Books I published two books in the IOP Concise Physics book series:

- "The Statistical Eyeglasses. The math behind scientific knowledge.", (A Morgan & Claypool publication as part of IOP Concise Physics, Bristol, 2018)
- "The Physics of Noise, (A Morgan & Claypool publication as part of IOP Concise Physics, Bristol, 2019)

Bibliometrics *Note, some papers are not detected by WOS. One additional, important remark is that many papers are published with the alphabetical ordering of authors, and for this reason I often happen to be at the middle of the author list.*

Total citations: 19862 (Google Scholar), 7948 (Web of Science)
Sum of Times Cited without self-citations: 7283 (Web of Science)
Citing Articles: 5036 (Web of Science)
Citing Articles without self-citations: 4835 (Web of Science)
Average Citations per Item: 29.88 (Web of Science)
Total citations since 2019: 11965 (Google Scholar)
H-index: 53 (Google Scholar), 33 (Web of Science)
H-index since 2019: 43 (Google Scholar)
i10-index: 150 (Google Scholar)
i10-index since 2019: 81 (Google Scholar)

Teaching

1987	assistant and local organizer at the "ICFA School on Instrumentation in Elementary Particle Physics" at the International Center for Theoretical Physics (ICTP, Miramare - Trieste)
1987-1991	<i>Physics lab</i> course for second-year Physics students at the University of Trieste as teaching assistant
1991	<i>Physics lab</i> course for third-year Physics students at the University of Trieste
1992-1999	<i>Physics lab</i> course for second-year Physics students at the University of Trieste
1999-2003	<i>General Physics</i> courses for first- and second-year Computer Science students at the University of Udine
2000-2005	<i>Electronics</i> course for Computer Science students at the University of Udine

1999-2018	<i>Digital Signal Processing</i> course for third-year BSc Physics students at the University of Trieste
2005-2008	<i>Physics lab (Thermodynamics)</i> course for first-year Physics students at the University of Trieste
2008-2010	<i>Electromagnetism</i> for second-year Mathematics students at the University of Trieste
2010-2021	<i>Advanced Statistics for Data Analysis in Physics</i> for MSc students at the University of Trieste
2006-present	<i>Bayesian Methods</i> for the Physics PhD course at the University of Trieste
2012-2018	<i>Introductory Biophysics</i> course for MSc Physics students at the University of Trieste
2013-2023	<i>Introductory Radiobiology</i> course in the Medical Physics Master held jointly by the University of Trieste and ICTP
2017-2020	<i>Information Technology</i> seminars on computational topics for Physics MSc students at the University of Trieste
2019-2022	<i>Physical Foundations of Modern Technology</i> course for third-year BSc Physics students at the University of Trieste
2022-present	<i>Gravitational Waves</i> for MSc students at the University of Trieste
2022-present	<i>Advanced Statistics for Physics</i> for MSc students at the University of Trieste

March 11, 2024