

Curriculum Vitae

Name: Pietro Faccioli

Date and Place of Birth: February 14-th 1974, Verona, Italy.

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Other Affiliations : Trento Institute for Fundamental Physics and Applications (INFN-TIFPA)

Education and Training

Academic Titles

- Undergraduate Degree in Physics earned “*summa cum laude*” at the Trento University (1998).
- Ph.D. in Physics, SUNY at Stony Brook, USA (2002).

Extended Periods in Foreign Institutions

- 1996: Exchange student at Imperial College (London).
- 1999-2002: Ph.D. student at SUNY Stony Brook (USA).
- 2009: Visiting scientist at IPhT CEA-Saclay (France).
- 2003, 2005, 2006, 2007, 2009: ”Bruno-Rossi” visiting scientist at Massachusetts Institute for Technology (USA).

Occupations

Present Position

- Associate Professor at the Physics Department of Trento University (2014- present).

Past Positions

- 2006-2014: Tenure Junior Faculty at Trento University.
- 2005-2006: Tenure Track Junior Faculty at Trento University.
- 2002-2005: Postdoctoral Associate at European Centre for Theoretical Studies in Nuclear Physics and Related Areas (ECT*).

Italian Habilitations for Full Professor Position

- Habilitation in sector 02/A2 (high energy theoretical physics and mathematical modelling)
- Habilitation in sector 02/B2 (theoretical physics for condensed matter and statistical physics)
- Habilitation in sector 02/D1 (applied physics to biology, medicine, cultural heritage, and environmental science)

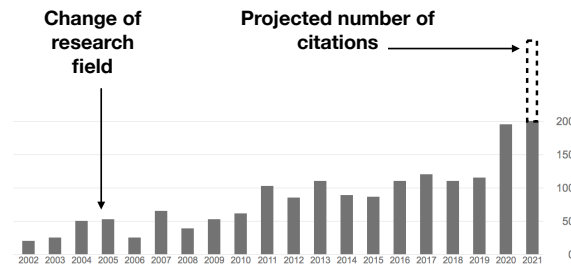


Figure 1: Time evolution of the yearly number of citations (source: Google Scholar). The prediction for 2021 was obtained extrapolating the rate of citations from January 1st till September 1st, 2021.

Institutional Roles and Responsibilities

- International scientific spokesperson for the ZePrion experiment (2021-present)
- Founder of a new research line in statistical and biological physics leading to the establishment of a group that currently consisting of 4 tenure or tenure-track PIs.
- National coordinator of a National Interest Research Project (PRIN) proposal currently under evaluation (2021).
- Coordinator for the Trento group of the "BIOPHYS" scientific initiative of INFN for research in computational biophysics (2014-present).
- Coordinator for the Trento group of the "AD31" (2008-2013) and "NINPHA" scientific initiative of INFN for research in hadron physics (2015-2016).
- Involved in the setting of the M.S. Degree in Quantitative and Computational Biology, Trento University (2015-2016).
- Member of the co-ordination board of the M.S. Degree in Quantitative and Computational Biology, Trento University (2016- present).
- Member of the co-ordination board of the Doctoral School in Physics, Trento University (2015-present).

External roles

- Member of the Scientific Advisory Board of Sibylla Biotech SRL (2017-2021).

Awards and Recognitions

- 2019: Invited delegate to represent Italian excellence in scientific and technological innovation at the *'Ita-Usa Innovation Forum'* (Stanford U.) on occasion of the visit of the President of

the Italian Republic.

- 2001: "V. Gribov Prize for Young Talents in Theoretical Physics", Erice (Italy).

Grants

- 2020: "Ramon Foundation Grant". Support for astronaut time and launch costs of the ZePrion Experiment
- 2019-21: INFN-TT "Research for Innovation 2019". Role: PI (40 kEUR).
- 2015-17: Trento University special grant for high-priority projects ("Grandi Progetti di Ateneo"). Role: Co-PI (40 kEUR).
- 2014-16: Alpha-1 Foundation grant. Role: formally sub-contracting from U. Maryland at Baltimore (20 kEUR).
- 2009: CNRS grant supporting a long-term visit at the IPhT of CEA-Saclay (France).
- 2003, 2005, 2006, 2007, 2009: "Bruno-Rossi" grant within the INFN-MIT scientist exchange program, Cambridge (USA).

BiblioMetric Indexes¹.

- H-index = 23
- i10-index = 44
- Growth of academic impact: my yearly number of citations has doubled from 2019 to 2020 and is projected to almost double from 2020 to 2021 (see Figure). In the last 12 months, I have published three papers in Phys. Rev. Lett., two papers in JACS and one in Comms. Biol.², in addition to regular articles in lower impact factor journals. The description of the past and current research activity and the complete publication list is reported in the document "Research and Publication".

Dissemination

- 73+ publications on peer-reviewed journals.
- About 30 invited talks in international meetings, about 60 contributed talks.

¹Source: Google Scholar

²New journal of Nature Publishing Group,

- About 40 invited seminars, colloquia and lectures in universities and research institutions, including MIT, Cambridge U. (Dept. Applied Mathematics and Theor. Phys.), Cambridge U. (Theoretical Chemistry *Colloquium*), Harvard U., ETH (Chemistry *Colloquium*), National Institute for Health.
- Invited lectures on the results of my activity, given at 5 international doctoral schools.

Teaching and Mentoring

List of Courses Given

1. Classical Mechanics –recitations– (B.S. in Physics)
2. Introduction to Nuclear and Subnuclear Physics –recitations–(B.S. in Physics)
3. Statistical Mechanics (B.S. in Physics)
4. Teaching Assistant in Calculus –recitations– (B.S., SUNY at Stony Brook).
5. Teaching Assistant in General Physics –recitations– (B.S. SUNY at Stony Brook).
6. Quantum Mechanics and Quantum Chemistry (M.S. in Quant. and Comp. Biol.)
7. Statistical Field Theory (M.S. in Physics).
8. Quantum Chromodynamics (Ph.D. in Physics).
9. Macromolecular Modeling (M.S. in Biotechnology)

My courses given at Trento University have consistently obtained very positive evaluations by the students³.

Advising and Mentoring

- 4 post-doc supervised in Theoretical Physics, Computational Physics and Chemical Physics.
- 6 Ph.D. theses supervised in Theoretical Physics, Computational Physics and Chemical Physics.
- 20 M.S. theses supervised in Physics and Quantitative and Computational Biology.

Many students I have supervised during their thesis have joined internationally reputed institutes such as Max Planck Institute (MPI) for Biophysics, MPI for Complex Systems, TU München, LM München, Niels Bohr Institute, SISSA, U. Ulm, U. Goteborg, NYU, ETH, U. Liverpool, U. Zurich.

³For example, the final outcome of the student appreciation survey has consistently been "100% Appreciation Level", which corresponds to receiving only "mostly positive" or "definitely positive" overall reviews.

Peer-Reviewing Activity

- Referee for the European Research Council (ERC) Starting Grant 2017 (proposals in computational biophysics).
- Referee for the National Science Foundation (NSF) of USA (proposals in computational biophysics).
- External Member of the Ph.D. Thesis Examining Committee of the Department of Applied Mathematics, Cambridge University, UK, February 2009 (thesis in quantum field theory).
- External Member of the Ph.D. Thesis Examining Committee of the Department Physics, Florence University, February 2012 (thesis in statistical physics).
- Referee for European Journal of Physics C, Physics Letters B, Physical Review D,C E, Physical Review Letters, Progress in Particle and Nuclear Physics, Journal of the American Chemical Society, Philosophical Magazine, Journal of Chemical Physics, Journal of Chemical Physics B, Journal of the American Chemical Society, New Journal of Physics, Journal of Applied Mathematics, Chaos, Journal Physical Chemistry Letters, Scientific Reports.

Organization of Conferences and Schools

- Organizer of the 2nd International Workshop on "Applications of Theoretical Physics Methods in Biology", ECT* June 2010.
- Co-organizer of the 1st International Workshop on "Applications of Theoretical Physics Methods in Biology", ECT* May 2005.
- Co-organizer of the ECT* Doctoral Training Program 2006 on "Numerical Techniques in Strongly Interacting Systems".
- Co-organizer of the joint FBK-Trento University-INFN-CNR workshop on "Biophysics of Macromolecular Interactions", Trento, September 2009.