

Bacchetta Alessandro - Curriculum Vitae



Department of Physics

University of Pavia

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Born in Borgosesia (Italy) 27/04/1974. Married, 4 children.

URL

<http://www.pv.infn.it/~bacchett/>

<http://www.hadronicphysics.it/hasqcd/>

Current/past positions

2020-now **Full Professor**, Department of Physics, University of Pavia, **Italy**, SSD: FIS/02 (Theoretical Physics)

2015-2020 **Associate Professor**, Department of Physics, University of Pavia, **Italy**, SSD: FIS/02 (Theoretical Physics)

2009-2015 **Assistant Professor** (Ricercatore Universitario), Department of Physics, University of Pavia, **Italy**, SSD: FIS/02 (Theoretical Physics)

2010-now **Research Associate**, Italian National Institute for Nuclear Physics (INFN), Pavia, **Italy**

2008-2009 Nathan Isgur Distinguished **Post-Doctoral Researcher**, Jefferson National Laboratory, Newport News, VA, **USA**

2005-2008 **Post-Doctoral Researcher**, Deutsches Elektronen-Synchrotron (DESY), Hamburg, **Germany**

2004-2005 A. von Humboldt **Post-Doctoral Researcher**, Department of Physics, University of Regensburg, **Germany**

2002-2003 **Post-Doctoral Researcher**, Department of Physics, University of Regensburg, **Germany**

Education

1998-2002 **Ph.D.** (Doctoraat) in Physics, Vrije Universiteit Amsterdam, **Nederland**
Supervisor: Prof. P. J. Mulders

1993-1998 **Degree in Physics** (Laurea in Fisica), Università degli Studi di Pavia, **Italy**
Supervisor: Prof. S. Boffi. Final grade: 110/110 cum laude.

1988-1993 **High School Diploma** (Diploma di Maturità), Liceo Scientifico, Borgosesia, **Italy**

1992 **High School Diploma**, East High School, Denver, CO, **USA**

Fellowships, Awards, Qualifications

- 2015 **National Qualification to Full Professor (Professore I fascia)**,
Settore Conc.: A2/02 (Theoretical Physics of Fundamental Interactions), Italy
- 2008 **National Qualification to Maître des Conférences**, France
- 2008 **N. Isgur Distinguished Fellowship**, Jefferson Science Associates, Newport
News, VA, USA
- 2004 **Alexander von Humboldt Fellow**, A. von Humboldt Foundation, Bonn,
Germany
- 1993 Admission to **Almo Collegio Borromeo**, Pavia, Italy

Publications and talks

Researcher identifiers(s): WoS Researcher ID: F-3199-2012

Scopus ID: 7004059162

Inspirehep ID: INSPIRE-00063618

ORCID: 0000-0002-8824-8355

- **81 publications** in peer-reviewed journals with **over 10000 citations** (inspirehep.net)
- 61 other publications (conference proceedings and white papers). Full List:
<https://inspirehep.net/search?ln=en&ln=en&p=exactauthor%3AA.Bacchetta.1&>
- Hirsch index **h=49** (inspirehep.net database), h=39 (WoS database)
- **5 experimental proposals** approved to run at Jefferson National Laboratory, USA
- 1 **textbook**: A. Bacchetta, D. Scannicchio, "**Introduction to Medical Physics**," ed.
Zanichelli-CEA, ISBN: 9788808320469 (2023)

Over 80 presentations at international meetings, including 7 plenary talks: DIS2019, Torino, Italy; EIC User Group Meeting 2017, Trieste, Italy; DIS2017, Birmingham, UK; Light Cone 2015, Frascati, Italy; Baryons 2013, Glasgow, UK; EuNPC 2012, Bucharest, Romania; MENU 2010, Williamsburg, VA, USA.

Funding ID

- 2023-2025 PI: **Italian Project of National Interest** (PRIN 2022) n. 20225ZHA7W:
"ProtoTaste - Tasting the flavor of the proton in its full dimensions" [**209 k€**]
- 2019-2023 WP coordinator (WP22, JRA4, "TMD-neXt"): **European INFRAIA action** n.
824093 "Strong 2020 – The strong interaction at the frontier of knowledge:
fundamental research and applications" [**WP budget: 360 k€**]
- 2019-2022 Supervisor: **Marie Curie Global Fellowship** n. 795475 "SQuHadron" (PI: Andrea
Signori) [**262 k€**]
- 2019-2021 Supervisor: **INFN Fellini Fellowship (Marie Curie Cofund** n. 754496) (PI: Yiannis
Makris) [**100 k€**]
- 2018-2020 Supervisor: **Marie Curie European Fellowship** n. 793896 "GlueCore" (PI: Miguel
G. Echevarria) [**180 k€**]
- 2017-2020 PI: **Italian Ministry of Education FARE project** "3DGLUE – Exploration of the
tridimensional distribution of gluons in the proton" [**90 k€**]

- 2015-2020 PI: **European Research Council Consolidator Grant** n. 647981 (ERC CoG 2014) “3DSPIN – 3-dimensional maps of the spinning nucleon” [1500 k€]
<http://www.hadronicphysics.it/3d-spin/>
- 2010-2013 Participant: **Italian Project of National Interest** (PRIN 2008): “The structure of the nucleon: transverse momentum, transverse spin and orbital angular momentum” [35 k€]
- 2009-2011 Participant: **European Integrated Infrastructure Activity** of the EC FP7 programme HadronPhysics2 (n. 227431), “Study of Strongly Interacting Matter” [15 k€]
- 2009-now Participant: **INFN research initiatives** NINPHA “National Initiative in Physics of HAdrons” and AD31 “Structure of hadrons and of cold hadronic matter” [~200 k€]
- 2004-2005 PI: **A. von Humboldt Research Grant** [42 k€]

Teaching and Mentoring Activities

- 2024-2025 Coordinator of project “Interactions” to boost **interactive teaching practices** in Physics, Dep. of Physics, University of Pavia, Italy [25 k€]
- 2012-now **Lectures** on “Quantum Electrodynamics,” Master in Physics, University of Pavia, Italy
- 2015-now **Lectures** on “Medical Physics,” Harvey Medical School, University of Pavia, Italy
- 2015-now **Lectures** on “Presentation Making,” University of Pavia, Italy
- 2010-2014 **Lectures** on “Soft skills for graduate students,” PhD in Physics, University of Pavia, Italy
- 2006-2023 **Advanced lectures** on hadronic physics: EIC European Summer School (Italy), Temple University (USA), ECT* Trento (Italy), Int. School “E. Fermi” Varenna (Italy), Jefferson Lab (USA), University of Ferrara (Italy), University of Trieste (Italy)
- 1999-2005 **Teaching assistant** for various courses at University of Regensburg (Germany) and Vrije Universiteit Amsterdam (Nederland)
- 2015-now **Supervision** of 8 PhD students: F. Delcarro (now post-doc), S. Cotogno (co-supervision, now post-doc at Ecole Polytechnique, Paris, France), F. Piacenza (now high-school teacher), C. Bissolotti (now post-doc), S. Rodini (co-supervision, now post-doc), M. Cerutti (co-supervision, now post-doc), L. Rossi, L. Polano
- 2006-now **Supervision or Co-supervision** of 12 master students: F. Conti (now Quantitative Analyst at UniCredit), A. Signori (now post-doc), S. Cotogno (now post-doc), L. Mantovani (now IT Consultant at Agilex), F. Delcarro (now post-doc), A. M. Ricci (now post-doc), F. Piacenza (now high-school teacher), C. Bissolotti (now post-doc), L. Manna (now PhD student), M. Cerutti (now PhD student), L. Rossi (now PhD student), A. Bongallino (now PhD student)

2009-now **Supervision or Co-supervision** of 10 post-docs: A. Courtoy (now faculty at CINVESTAV, Mexico), X. Xiong (now junior faculty at Central South University, Changsha, China), C. Pisano (now faculty at U. of Cagliari, Italy), P. Taels, M. G. Echevarria (now faculty at University of Bilbao, Spain), G. Bozzi (now faculty at U. of Cagliari, Italy), V. Bertone, F. G. Celiberto, A. Signori, Y. Makris

Organization of International Meetings

- 2022 Member of **Organizing Committee** of workshop on Opportunities with JLab Energy and Luminosity Upgrade, ECT*, Trento, Italy
- 2022 Chair of **Organizing Committee** of workshop on Transverse Polarization Phenomena in Hard Processes (Transversity 2022), Pavia, Italy
- 2022 Member of **Organizing Committee** of workshop on Correlations in Partonic and Hadronic Interactions (CPHI 2022), Duke University, USA
- 2021 Member of **Organizing Committee** of the workshop "TMD Studies: from JLab to EIC"
- 2019, 21, 23 Member of **Organizing Committee** of Sardinian Workshop on Spin, Cagliari, Italy
- 2019 Co-chair of **Organizing Committee** of Workshop "Resummation, Evolution, Factorization", Pavia, Italy
- 2018 **Organizer** of workshop "Fragmentation Functions 2018," Stresa, Italy
- 2014, 17 Member of **Local Organizing Committee**, or workshop series Transverse Polarization Phenomena in Hard Processes (Transversity 2014, Chia, Cagliari, Italy and Transversity 2017, INFN-Laboratori di Frascati, Italy)
- 2016 Member of **Organizing Committee** of workshop on Precision Radiative Corrections for Next Generation Experiments, Jefferson Lab, USA
- 2016 **Organizer** of Workshop on Parton TMDs at large x, ECT*, Trento (Italy)
- 2011 **Organizer** of Workshop on Dihadron Fragmentation Functions, Pavia (Italy)
- 2010 **Organizer** of Workshop on Transverse Momentum Distributions, ECT*, Trento (Italy)
- 2008 Member of **Local Organizing Committee**, SPIN 2008 Symposium, Charlottesville (VA, USA)
- 2018, 20 Member of **International Advisory Committee** of workshop series Correlations in Partonic and Hadronic Interactions (Yerervan, Armenia, and Geneva, Switzerland)
- 2019 Member of **International Advisory Committee** of International Workshop on Nucleon Structure at Large Bjorken x, Kolympari, Greece
- 2019 Member of **International Advisory Committee** of International Workshop on Hadron Structure and Spectroscopy, Aveiro, Portugal
- 2016 Member of **International Advisory Committee** of Workshop 3D Parton Distributions: path to the LHC, INFN-Laboratori di Frascati, Italy
- 2015 Member of **International Advisory Committee** of European Nuclear Physics Conference (EuNPC) 2015, Groningen (Nederland)

- 2012, 16 Member of **International Program Committee** of workshop series on the QCD Structure of the Nucleon (QCD-N'16, Getxo, Spain, QCD-N'12, Bilbao, Spain)
- 2010, 13 Member of **International Advisory Committee** of Workshop on Probing Strangeness in Hard Processes, Laboratori Nazionali di Frascati (Italy)
- 2019 **Convener** of Future of DIS Working Group, 27th International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS2019), Torino, Italy
- 2018 **Convener** at Program INT-18-3 "Probing Nucleons and Nuclei in High Energy Collisions," INT, Seattle, USA
- 2018 **Convener** of parallel session at SPIN 2018 Symposium, Ferrara, Italy
- 2015, 17 **Convener** of Italian Workshop on Hadron Physics and Non-Perturbative QCD (2015, Cortona, Italy and 2017, Pollenzo, Italy)
- 2013 **Convener** of Spin Working Group, 21th International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS2013), Marseille (France)
- 2009 **Convener** of Workshop on Partonic Transverse Momentum Distributions, Mylos (Greece)

Institutional responsibilities and commissions of trust

- 2024-2025 Member of **Super Proton Synchrotron Committee (SPSC)** of CERN (CH) (https://scientific-info.cern/archives/history_CERN/Scientific_committees#SPSC2)
- 2024-2027 Member of **International Spin Physics Committee** (<http://www.spin-community.org/>)
- 2018-2023 Member of **Program Advisory Committee** of T. Jefferson National Lab (USA) from PAC46 to PAC51 (<https://www.jlab.org/physics/PAC>)
- 2019-2022 **Deputy Director**, Department of Physics, U. of Pavia (Italy)
- 2019-now Coordinator of the **Research and Outreach Committee**, Department of Physics, U. of Pavia (Italy)
- 2017-now Member of **Scientific Board** of Horizon 2020 Committee, U. of Pavia (Italy)
- 2015-now Member of **Teaching Board** of PhD School in Physics, U. of Pavia (Italy)
- 2015-2020 Member of **Scientific Advisory Committee** of Centro Linguistico di Ateneo, U. of Pavia (Italy)
- 2013-2022 Member of **Scientific Advisory Committee** of Library of Science, U. of Pavia (Italy)
- 2013-2015 Member-elect of the **Board of Direction**, Department of Physics, U. of Pavia (Italy)
- 2021-now Convener of the **Theoretical Physics Working Group** of the Electron Ion Collider User Group

- 2011-now **Reviewer** for: Italian Ministry of Research and Education; Belgian Research Fund - Flanders (FWO); Belgian Fonds de la Recherche Scientifique (FNRS); Croatian Ministry of Science, Education and Sport; National Science Center Poland; French National Research Agency.
- 2003-now **Referee** for: Physical Review Letters, Physical Review D, Physical Letters B, Progress Particle Nuclear Physics, European Physical Journal A
- 2007-2016 Member of **PhD Committees** of: J. Urtasun, University of Milano (Italy), A. Signori, Vrije Universiteit Amsterdam (Nederland), M.G.A. Buffing, Vrije Universiteit Amsterdam (Nederland), F. F. Van der Veken, University of Antwerp (Belgium), M. G. Echevarria, Universidad Complutense de Madrid (Spain), P. B. van der Nat, Vrije Universiteit of Amsterdam (Nederland)
- 2010, 2013, 2020 Member of **Selection Committee** for the admission to the PhD in Physics “XXVI ciclo”, “XXIX ciclo”, “XXXVI ciclo”, U. of Pavia (Italy)
- 2009 Member of **Selection Committee** for the admission to Collegio S. Caterina, Pavia (Italy)
- 2009, 11, 13, 14 Member of **Selection Committee** for the admission to Almo Collegio Borromeo, Pavia (Italy)

Outreach

- 2021-2023 Member of the winning team of the first **Science Battle** competition within the EC2U Alliance (<https://ec2u.eu/>)
- 2021-now **Scientific Committee member**, Asimov prize for scientific outreach books, organized by INFN, Italy (<https://www.premio-asimov.it/>)
- 2012-2023 **Participation in “European Researcher’s Night”** with various initiatives sponsored by INFN and University of Pavia: seminars (2012-2015), laboratory for primary school students (2013-2014-2015), laboratory on the science of cooking (2016), Quantum 3 stand (2022-2023)
- 2014-now **Public seminars:** for high-school students (Sondrio and Voghera, Italy), for university students (Collegio Borromeo, Pavia, Italy), for general public (Grignasco, Italy), for high-school teachers (Borgosesia and Pavia, Italy)
- 02/2019 Jury member of the event **Famelab Pavia 2019**
- 2016-2017 **Laboratory for elementary school students**, “Bambinfestival,” Pavia (Italy)
- 2010-2018 **Lectures for high-school students**, Summer Stage, Department of Physics, University of Pavia (Italy)

Other

- 2022-now **President**, Alumni Association of Almo Collegio Borromeo, Pavia (Italy)
- 2018-2022 **Secretary and Treasurer**, Alumni Association of Almo Collegio Borromeo, Pavia (Italy)

2019-2022, 2013-2015 Member-elect of **School Board of Direction**, Istituto Comprensivo IC Cavour, Pavia (Italy)

Languages

Italian Mother tongue
English Fluent
German Fair

French Fair
Dutch Basic

Pavia, 10/12/2023

