CURRICULUM VITÆ

Angelo Enrico Lodovico Nucciotti

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Personal Data

Born in Catania, October 21, 1967;
Italian citizen;
Resident in Via Plinio, 15, 20129 Milan;
Married with two children.

Education and Training

- VIII cycle of the PhD in Physics at the University of Milan. PhD thesis discussed on February 2, 1996 before the committee appointed by the Board of Professors of the PhD in Physics of Milan. Thesis title: "Development of low temperature microcalorimeters to be used in an experiment for the determination of the neutrino mass", supervisor Prof. E. Fiorini. Final exam passed successfully on October 16, 1996 at the University of Rome "La Sapienza";
- Degree in Physics obtained on February 10, 1992 at the University of Milan with a grade of 110/110 cum laude. Thesis title: "Development of a thermal detector for the search for the double beta decay of ^{130}Te at the Gran Sasso National Laboratories", supervisor Prof. E. Fiorini, co-supervisor Prof. G. Benedek;

Current Position

Full Professor at the Department of Physics "G. Occhialini" of the University of Milano-Bicocca since 2023.

Field: FIS/04 NUCLEAR AND SUBNUCLEAR PHYSICS
Competition sector: 02/A1

Work Experience

2014–2023 Associate Professor at the Department of Physics "G. Occhialini" of the University of Milano-Bicocca.

2001–2014 Researcher at the Department of Physics "G. Occhialini" of the University of Milano-Bicocca.

1997–2001 Fixed-term contract at the INFN Milan Section as Technologist of professional level III; the role was technical-scientific collaboration for the setup of a cryogenics laboratory and the development of cryogenic detectors.

1997 Collaboration contract with the University of Milan for: "Measurements of radioactive contamination in cryogenic material and improvement of methods based on the Monte Carlo technique".

1996 Collaboration contract with the University of Milan for: "Measurements of radioactive contamination and improvement of methods based on the Monte Carlo technique, for the evaluation of the efficiency of Germanium diodes".

1995 Collaboration contract with the University of Milan for: "Measurements of environmental radioactivity: determination of the efficiency of various Germanium detectors with different material thicknesses, using the Monte Carlo method".

1993–1995 Scholarship for the VIII Cycle of the PhD in Physics at the University of Milan.

1992–1993 Employment contract as *freier Mitarbeiter* at the Max-Planck-Institut für Physik in Munich.

Research Responsibility and Coordination Roles

2004–Present Since the opening of the Cryostats Laboratory at the Department of Physics of the University of Milano-Bicocca in 2004, I have grown and led a group of young researchers who have supported me in all the research activities reported here and below. The research group I currently coordinate consists of three university staff members (2 PA and 1 RTD-A), a permanent INFN researcher, 5 PhD students, and 2 Post-doc researchers.

2004–Present Head of the Cryostats Laboratory at the Department of Physics (University of Milano-Bicocca), funded by INFN with 50 k€ per year since 2004, according to the Additional Protocol within the Agreement between INFN and the University of Milano-Bicocca. Coordinator of all research activities in the laboratory (CUORE, HOLMES+, PTOLEMY, KIDS-RD, CUPID, SINGLE, BAUSCIA, QUART&T,...).

2025–Present PI of the PRIN 2022 MUR project "TES4e - Low temperature TES microcalorimeters for high energy resolution spectroscopy of low energy electrons" with a total budget of about 200 k€(CUP H53C24000870006).

2023–Present Scientific contact for the Letter of Intent between the University of Milano-Bicocca - Bicocca Quantum Technologies BiQuTe and the Technology Innovation Institute in Abu Dhabi (UAE) for cooperation in the field of Quantum Sciences and Technologies.

2022–Present Contact person for the activities of the University of Milano-Bicocca in Spoke 10 "Quantum Computing" of the National Centre for HPC, Big Data and Quantum Computing (PNRR MUR – M4C2 – Investment 1.4 - Call "National Centres") with a budget of about 1.1 M€.

2022–Present Contact person for the activities of the University of Milano-Bicocca in Spoke 6 "Integration of Quantum Devices" of the National Institute for Quantum Science and Technology (PNRR MUR – M4C2 – Investment 1.3 - Call "Extended Partnerships") with a budget of about 3.5 M€.

2021–Present Scientific contact for the Framework Agreement between the University of Milano-Bicocca - Bicocca Quantum Technologies BiQuTe and the Bruno Kessler Foundation of Trento for cooperation in the field of Quantum Sciences and Technologies.

2021–Present Scientific Director of the Interdepartmental Research Center "Bicocca Quantum Technologies – BiQuTe" (D.R. Rep. N. 8756/2021, Prot. 0133403 of 29/10/2021), with more than 50 affiliated professors.

2021–Present Coordinator for the University of Milano-Bicocca and supervisor of the researcher awarded the project "DARTWARS, Detector Array Readout with Traveling Wave AmplifieRS", Individual Fellowship within the Marie Skłodowska-Curie Actions (MSCA-IF-2020 n. 101027746), with a budget of 250 k€ and a training period abroad at the University of Colorado and the National Institute for Science and Technology (NIST) in Boulder (USA).

2020–Present Spokesperson of the international HOLMES experiment (36 researchers from 8 institutions in 5 countries).

2014–Present National Coordinator of the HOLMES-2 and HOLMES experiments of the INFN National Scientific Committee 2 (about 60 k€/year in addition to the ERC funding of 3.0 M€ total).

2014–2020 Scientific Coordinator for the University of Milano-Bicocca of the project *Electron Capture Decay of ^{163}Ho to Measure the Electron Neutrino Mass with sub-eV sensitivity – HOLMES*, Advanced Grant ERC (GA n. 340321). The University of Milano-Bicocca is the second beneficiary of the Grant with a budget of about 1.4 M€.

2013 National Coordinator of the MARE-RD experiment (*Microcalorimeter Array for a Rhenium Experiment*) of the INFN National Scientific Committee 2.

2011–2014 Scientific coordinator of the project *Development of Microresonator Detectors for Neutrino Physics*, "International Recruitment Call 2010" of Fondazione Cariplo (ref. 2010-2351) with a budget of 571 k€.

2007–2013 Technical coordinator of the international project "MARE - Microcalorimeter Array for a Rhenium Experiment" (about 40 researchers from 12 institutions in Italy, Germany, and the USA).

2006–2012 Local Coordinator at the INFN Section of Milano-Bicocca of the MIBETA, MARE, and MARE-RD experiments of the INFN National Scientific Committee 2.

2004–2014 Coordinator of the Cryogenics Working Group of the international CUORE collaboration (*Cryogenic Underground Observatory for Rare Events*) for the design, production, and installation of the experiment's cryogenic system.

National and International Research Assignments

2001–Present Scientific Research Assignment, National Institute for Nuclear Physics (INFN), Sections of Milan and Milano-Bicocca.

1992–1993 Research Assignment at the Max Planck Institute for Physics (MPI), W. Heisenberg Institute, Munich, Germany

Research Funding from Competitive Calls

- "TES4e - Low temperature TES microcalorimeters for high energy resolution spectroscopy of low energy electrons", PRIN 2022, MUR, (CUP H53C24000870006). Funding of 200 k€.
- Fondo di Ateneo Quota Competitiva FAQC 2023 call: funding of 21 k€as support for research projects that, despite having received very positive evaluations in rigorous evaluation procedures by the funding bodies, did not reach the thresholds necessary for funding ("TES4e - Low temperature TES microcalorimeters for high energy resolution spectroscopy of low energy electrons", PRIN 2022, evaluated 95/100).
- Project "Research, innovation and training in the field of quantum technologies based on superconducting devices and applied to Quantum Computing, Quantum Information and particle physics" selected for funding with an RTD-B position following a Call of the University of Milano-Bicocca in 2021.
- Fondo di Ateneo Quota Competitiva FAQC 2015 call: funding of 25 k€as support for research projects that, despite having received very positive evaluations in rigorous evaluation procedures by the funding bodies, did not reach the thresholds necessary for funding ("EPIC-MAPS", H2020-FETOPEN-2014-2015-RIA, evaluated 4.5/5.0).
- "Development of Microresonator Detectors for Neutrino Physics", "International Recruitment Call 2010" of Fondazione Cariplo (ref. 2010-2351). The project duration is 3 years (starting from June 2011). Funding of 571 k€ (co-funded at 30% by the University of Milano-Bicocca).

Other National and International Recognitions

- Member of the Italian Physical Society, since 2023.
- Member of the Electronics Sub-Committee of the "16th European Conference on Applied Superconductivity", held in Bologna from September 3 to 7, 2023 (since 2022).
- Member of the International Advisory Committee of the "XXX International Conference on Neutrino Physics and Astrophysics (Neutrino)", held in Seoul from May 30 to June 4, 2022 (since 2021)
- Reviewer of a project submitted for the Vinci 2022 call of the Italo-French University.
- External expert member of the selection process for "Tenure track position for an Expert Researcher in the field of cryogenic devices for Physics and Quantum Sensing" at the Bruno Kessler Foundation (Povo, TN, Italy) in 2021.
- Peer reviewer for *Physics Review Letters* (2022), *Nature Physics* (2021), *Applied Physics Letters* (2017 and 2020), *Nuclear Instruments and Methods A* (2019), *Journal of Low Temperature Physics* (2013, 2015, 2017 and 2019), *EPJ Web of Conferences* (2017), *Journal of High Energy Physics* (2016) and *Review of Particle Physics* (2016).
- Member of the International Advisory Committee of "International Workshop on Low Temperature Detectors" from 2012 to present.
- Guest Editor of the proceedings of the international congress LTD-18 published in three Special Issues of the Journal of Low Temperature Physics (Springer) (volume 199, 2020).
- External reviewer of a PhD thesis of the Gran Sasso Science Institute (GSSI), L'Aquila (Italy) in 2017.
- Referee of the SABRE experiment for the INFN National Scientific Committee 2 from 2015 to present.
- Reviewer of two projects of the French Agence Nationale de la Recherche ANR (Appel à projet Chimie, matériaux, sciences de l'ingénierie, 2014 and 2015).
- Reviewer of two Technical Design Reports (*maXs Cryogenic Micro-Calorimeter Arrays* and *SiM-X Project: Silicon Microcalorimeters for high-precision X-ray spectroscopy*) for the ACCA-SPARC experiment at FAIR (2014 and 2015)
- Editor of the publication "The Future of Neutrino Mass Measurements: Terrestrial, Astrophysical, and Cosmological Measurements in the Next Decade. Highlights of the NuMass, 2013 Workshop. Milano, Italy, 4 - 7 February, 2013", 2013, arXiv:1309.7810v1 [hep-ex].

Institutional Roles

2026 Member of the committee for the admission competition to the XXXIX cycle of the PhD in Physics and Astronomy at the University of Milano-Bicocca.

2023 Member of the committee for the admission competition to the XXXIX cycle of the PhD in Physics and Astronomy at the University of Milano-Bicocca.

2023 Contact person for the "Quantum Technologies" track of the Master's Degree in Physics at the University of Milano-Bicocca.

2022 Member of the evaluation committee for the selection procedure for a second-level professor (Competition sector 02/A1 – Scientific-disciplinary sector FIS/01) at the Department of Physics of the University of Rome "Sapienza".

2021 President of the evaluation committee for the recruitment of a fixed-term researcher RTD-B (Competition sector 02/A1 – Scientific-disciplinary sector FIS/04) at the Department of Physics "G. Occhialini" of the University of Milano-Bicocca.

2023, 2019 and 2017 President of the evaluation committees for the recruitment of fixed-term researchers RTD-A (Competition sector 02/A1 – Scientific-disciplinary sector FIS/04) at the Department of Physics "G. Occhialini" of the University of Milano-Bicocca.

2018–Present Elected member of the Department Board (Department of Physics of the University of Milano-Bicocca)

2015–Present Member of the Board of Professors of the PhDs in PHYSICS AND ASTRONOMY of the University of Milano-Bicocca for Cycles XXXI (A.Y. 2015/16), XXXII (A.Y. 2016/17), XXXIII (A.Y. 2017/18), XXXIV (A.Y. 2018/19), XXXV (A.Y. 2019/20), XXXVI (A.Y. 2020/21), XXXVII (A.Y. 2021/22), XXXVIII (A.Y. 2022/23), XXXIX (A.Y. 2023/24), XXXX (A.Y. 2024/25), XXXXI (A.Y. 2025/26)

2010–Present Supervisor and RADL (only until 2024) for the Cryostats Laboratory of the Department of Physics of the University of Milano-Bicocca pursuant to Legislative Decree no. 81 of 2008 (Consolidated Law on the health and safety of workers).

Other Titles and Recognitions

2021, 2023, 2024, 2025, 2026 Certificate of positive evaluation pursuant to art. 6, paragraph 7, of Law 240/2010.

2019 National Scientific Qualification for the role of Full Professor (competition sector 02/A1) valid from 30/05/2019 to 30/05/2025.

2014 One-off incentive year 2012 – Permanent researchers, University of Milano-Bicocca, Milan.

Summary of Research Activity

2024–Present TES4e project (PRIN 2022, MUR) for the development of TES microcalorimeters for the detection of low energy electrons in collaboration with INRIM.

2023–Present BAUSCIA project (*Dipartimenti di Eccellenza 2023-2027*, MUR)for the search for high-frequency gravitational waves with an array of bulk-acoustic-wave sensors in the framework of *Centro Bicocca di Cosmologia Quantitativa" (BiCoQ)*.

2022–Present Projects of the *National Centre for HPC, Big Data and Quantum Computing (ICSC)* and the *Institute for Quantum Science and Technology (NQSTI)* for the development of superconducting quantum devices for astroparticle physics, quantum metrology, quantum sensing, and quantum computers and simulators.

2022–Present Scientific contact for the University of Milano-Bicocca for Spoke 10 of ICSC and for Spoke 6 of NQSTI

2023–Present Contact for the activities "Integration of electronic quantum devices" and "Integration of inter-platform quantum devices" (NQSTI, Spoke 6)

2020–Present Qub-IT project of the INFN National Scientific Committee 5 for the development of microwave photon detectors with superconducting qubits for axion detection.

2020–Present DARTWARS Project (Detector Array Readout with Traveling Wave AmplifieRS) of the INFN National Scientific Committee 5 and subject of an Individual Fellowship MSCA for the development of superconducting parametric amplifiers for the control of quantum devices and for the readout of signals from superconducting detectors for astroparticle physics.

2014–Present Scientific Coordinator of the activity subject of the Individual Fellowship MSCA.

2018–Present International project PTOLEMY, *A Proposal for Thermal Relic Detection of Massive Neutrinos and Directional Detection of MeV Dark Matter*, for a revolutionary experiment for the detection of the cosmic neutrino background (Cosmic Neutrino Background, CNB) and the direct measurement of the neutrino mass using tritium.

2011–Present: Experiment for the determination of the neutrino mass through the calorimetric measurement of the electron capture spectrum of ^{163}Ho. Activity started within the MARE project, merged in 2014 into the HOLMES experiment.

2020–Present Spokesperson of the international HOLMES and HOLMES+ experiment

2014–Present National Coordinator of HOLMES+, HOLMES-2 and HOLMES for INFN.

2014–Present Scientific Coordinator of the HOLMES ERC project (GA. 340321) for the University of Milano-Bicocca.

2005–2013: International project MARE, *Microcalorimeter Array for a Rhenium Experiment*, for the realization of a new experiment for the calorimetric measurement of the neutrino mass by studying the beta spectrum of ^{187}Re with thermal microcalorimeters and with a statistical sensitivity up to 0.1 eV.

2013 National Coordinator of MARE-RD for INFN.

2007–2013 Technical Coordinator of the MARE project.

2007–2012 Local Coordinator of the MIBETA, MARE, and MARE-RD experiments for INFN.

2004–Present: International experiment CUORE, *Cryogenic Underground Observatory for Rare Events*, to explore the inverted hierarchy of neutrino masses through the search for neutrinoless double beta decay ($\beta\beta$-0ν) of ^{130}Te with an array of one ton of low-temperature TeO_2 detectors at the Gran Sasso National Laboratories.

2004–2014 Coordinator of the Cryogenics Working Group of CUORE.

2002–Present: Research and development on innovative low-temperature detectors and cryogenic technologies to be used in Astroparticle Physics experiments at the Cryostats Laboratory, which I am responsible for, hosted by the Department of Physics of the University of Milano-Bicocca.

2011–2014 Scientific coordinator of the project *Development of Microresonator Detectors for Neutrino Physics* of Fondazione Cariplo (ref. 2010-2351).

1999–2008: International experiment CUORICINO for the search of $\beta\beta$-0ν of ^{130}Te with arrays of low-temperature TeO_2 detectors at the Gran Sasso National Laboratories.

1993–2007: MIBETA experiment for the direct and calorimetric measurement of the neutrino mass through the study of the end-point of the beta decay of ^{187}Re and using thermal microdetectors.

2007 Local coordinator of the MIBETA experiment.

1992–1993: Research and development on sapphire thermal detectors with tungsten superconducting thermometers for the direct detection of Weakly Interacting Massive Particles (WIMP) at the Max-Planck-Institut für Physik.

1991–2001: Research and development on low-temperature TeO_2 detectors for the search for $\beta\beta$-0ν of ^{130}Te at the INFN laboratories in Milan in parallel with various experiments with arrays of TeO_2 detectors of increasing mass at the Gran Sasso National Laboratories.

Participation in national and international projects from competitive calls

- "MiSS - Microwave Squeezing with Superconducting (meta) materials", Horizon Europe 2021-2027 FP, GA n. 101135868;
- "BAUSCIA", *Centro Bicocca di Cosmologia Quantitativa" (BiCoQ)*, MUR Grant *Dipartimenti di Eccellenza 2023-2027*;
- "Optimization of bolometric detectors for neutrino physics", PRIN 2006;
- "Thermal detectors for applications in fundamental physics and materials science", PRIN 2004;
- "Applied Cryodetectors", FP5, Research Training Network n. HPRN-CT-2002-00322 (2002); Coordinating group;
- "Technology and applications of cryogenic microdetectors", PRIN 2001;
- "Development of bolometers for X and beta spectroscopy, materials study and ultra-low radioactivity measurements", PRIN 1999;
- "Cryogenic detectors", FP4, EC-Network n. ERB-FMRX-CT98-0167 (1998); Coordinating group;

Scientific output

I am co-author of about 330 publications in international journals with an *h-index* of 46 and more than 7400 citations (Scopus Author ID: 7003914962, May 2026). Among my publications, 43 have more than 50 citations and, of these, 12 have between 100 and 200, 5 have between 200 and 300, and 1 has more than 300.

I have had the opportunity to orally present the results of my research activity at more than 34 international conferences and workshops: 16 of these presentations were by invitation (see section on page 9 for a detailed list). I have also been invited to present, during international conferences and workshops, 14 review talks on topics such as the search for neutrinoless double beta decay, the direct measurement of the neutrino mass, and the technique of thermal detectors (see section on page 10 for a detailed list).

I have been invited to present my work at Institut Laue-Langevin in Grenoble, France (2025), the University of Rome 3 (2024), the University of Rome "La Sapienza" (in 2020 and 2014), the Paul Scherrer Institut in Villigen, Switzerland (2017), the Gran Sasso National Laboratories of INFN (2014), the University of Wisconsin in Madison (in 2009 and 1998), the University of Insubria in Como (2005), the Tübingen University in Germany (2004), the Lawrence Livermore National Laboratory in Livermore, California (1998), the Nuclear and Astrophysics Laboratory of Oxford University (1996), and the Max-Planck-Institut in Munich (1996) (see section on page 11 for a detailed list).

Conferences, seminars, and schools

Invited talks on my research projects

- "HOLMES, progresses towards a calorimetric neutrino mass measurement with eV scale mass sensitivity", 17th International Conference on Topics in Astroparticle and Underground Physics - TAUP 2021, August 26 - September 3, 2021, Valencia, Spain (remote);
- "HOLMES", Determination of the absolute electron (anti)-neutrino mass, February 10-14, 2020, ECT*, Trento, Italy;
- "Status of the HOLMES neutrino mass experiment", 6th Symposium on Neutrinos and Dark Matter in Nuclear Physics - NDM 2018, June 29 - July 4, 2018, IBS HQ, Daejeon, South Korea;
- "Direct neutrino mass measurement by the HOLMES experiment", Conference on Neutrino and Nuclear Physics - CNNP2017, October 15-21, 2017, Monastero dei Benedettini, University of Catania, Catania, Italy;
- "Status of the HOLMES experiment to directly measure the electron neutrino mass", 17th International Workshop on Low Temperature Detectors (LTD-17), July 17-21, 2017, Kurume, Japan;

- "The HOLMES experiment", Determination of the absolute electron (anti)-neutrino mass, April 4-8, 2016, ECT*, Trento, Italy;
- "The HOLMES experiment", 16th International Workshop on Low Temperature Detectors (LTD-16), July 20-24, 2015, Grenoble, France;
- "Rhenium beta decay and keV sterile neutrinos with the MARE experiment", Paris Working Meeting: keV scale sterile neutrinos in KATRIN and MARE, December 5, 2011, Observatoire de Paris, Paris campus, Paris, France;
- "The MARE experiment and its capabilities to measure the mass of light (active) and heavy (sterile) neutrinos", Ecole Internationale Daniel Chalonge, Workshop CIAS Meudon 2011, WARM DARK MATTER IN THE GALAXIES: THEORETICAL AND OBSERVATIONAL PROGRESSES CIAS Observatoire de Paris, June 8-9, 2011, Château de Meudon, Meudon campus, Paris, France;
- "Neutrino mass calorimetric searches in the MARE experiment", Neutrino 2010, June 14-19, 2010, Athens, Greece;
- "the MARE project: the calorimetric approach potential", New Instruments for Neutrino Relics and Mass, December 8, 2008, CERN, Geneva, Switzerland;
- "CUORE Cryogenic System Design", Meeting on Cryocoolers organized by Institute of Physics (IOP) and British Cryogenics Council (BCC), March 17, 2008, Southampton, England;
- "The future of rhenium beta decay experiments: the MARE project", 372. WE-Heraeus-Seminar: Massive Neutrinos, July 10-12, 2006, Physikzentrum Bad Honnef, Germany;
- "Bolometric Measurements of the Neutrino Mass", 10th International Workshop on: Neutrino Telescopes, March 11-14, 2003, Venice, Italy;
- "Low temperature microcalorimeter development for a neutrino mass experiment", 7th International Workshop on: Neutrino Telescopes, February 27 - March 1, 1996, Venice, Italy;

Review talks by invitation at conferences

- "Present and future of direct neutrino mass experiments", The XXX International Conference on Neutrino Physics and Astrophysics (Neutrino 2024), May 30 - June 4, 2024 ,Milano, Italy;
- "Advances in holmium-based neutrino mass experiments", International School of Nuclear Physics - 43rd Course Neutrinos in Cosmology, in Astro-, Particle- and Nuclear Physics, Erice, September 16-22, 2022;
- "Cryogenic detectors for rare event searches", Vienna Conference on Instrumentation VCI 2022, February 21-25, 2022 (remote);
- "Prospects for neutrino mass in other isotopes", July 8, 2020, "Mini Workshop: Direct Neutrino Mass Measurements" as part of SnowMass 2021 - NF05: Neutrino Properties topical group of Neutrino Physics Frontier (remote);

- "New low temperature and superconductivity technology challenges", INFN Workshop on Future Detectors (IFD 2015), December 16-18, 2015, Turin, Italy;
- "Neutrinoless double beta decay searches with low temperature detectors", 561. WE-Heraeus-Seminar: Massive Neutrinos, April 22-25, 2014, Physikzentrum Bad Honnef, Germany;
- "Low Temperature Detectors for Neutrino Physics", 15th International Workshop on Low Temperature Detectors (LTD15), July 23-28, 2013, Pasadena, CA, USA;
- "Sensitivity of neutrino mass measurements with microcalorimeters", INT Workshop - The Future of Neutrino Mass Measurements: Terrestrial, Astrophysical, and Cosmological Measurements in the Next Decade, February 8-11, 2010, Seattle WA, USA;
- "Neutrino physics with thermal detectors", MEDEX'09, June 15-19, 2009, Prague, Czech Republic;
- "Double Beta Decay: Experiments and Theory Review", 5th International Conference on Flavor Physics and CP Violation (FPCP2007), May 12-16, 2007, Bled, Slovenia;
- "Application of cryogenic detector in subnuclear and astroparticle physics", 11th International Workshop on Low Temperature Detectors (LTD11), July 31 - August 5, 2005, Tokyo, Japan;
- "Present and future of neutrinoless double beta decay experiments", 5th International Workshop on Identification of Dark Matter (IDM04), September 6-10, 2004, Edinburgh, England;
- Review talk by invitation titled "Weak Interaction Physics with Thermal Detectors", given during the 56th Calorimetry Conference, July 2001, Colorado Springs, Colorado, USA;
- "Neutrino masses: where are we?", XXXVIII International Winter Meeting on Nuclear Physics, January 2000, Bormio, Italy;

Invited seminars and lectures at advanced schools

- "Measuring the neutrino mass with the HOLMES experiment", May 5, 2025, Institut Laue-Langevin ILL, Grenoble, France;
- "Advances in direct neutrino mass experiments", April 18, 2024, University of Rome 3, Roma, Italy;
- "HOLMES", July 8, 2020, "Thematic afternoon on neutrino mass" organized by the Department of Physics of the University of Rome "La Sapienza", Rome (remote);
- "The HOLMES experiment", Paul Scherrer Insitut, May 23, 2017, Villigen, Switzerland;
- "HOLMES - The Electron Capture Decay of ^{163}Ho to Measure the Electron Neutrino Mass with sub-eV sensitivity", May 13, 2014, Gran Sasso National Laboratories, Assergi (AQ), Italy;
- "HOLMES - The Electron Capture Decay of ^{163}Ho to Measure the Electron Neutrino Mass with sub-eV sensitivity", March 4, 2014, Department of Physics of the University of Rome "La Sapienza", Rome;

- "the MARE project", Department of Physics of the University of Wisconsin, July 27, 2009, Madison, Wisconsin, USA;
- "The future of rhenium beta decay experiments: the MARE project", GERDA collaboration meeting, November 13-15, 2006, Department of Physics of the University of Milano-Bicocca, Milan;
- "Direct measurements of the neutrino mass", May 11, 2005, University of Insubria, Como;
- "Cryogenic Detectors in Particle Physics and Astronomy", Graduate Day, University of Tübingen, organized by European Graduate School Basel-Tübingen "Hadrons in Vacuum, in Nuclei and Stars", November 19, 2004, Tübingen, Germany;
- "Direct Measurements of the Neutrino Mass", International School on Astroparticle and Neutrino Physics, June 10-15, 2002, Villa Cipressi, Varenna, Italy;
- "$AgReO_4$ microcalorimeters for a direct neutrino mass experiment", February 1998, Lawrence Livermore National Laboratory, California, USA;
- "$AgReO_4$ microcalorimeters for a direct neutrino mass experiment", February 1998, Department of Physics of the University of Wisconsin, Madison, USA;
- "Silicon implanted thermistor development for a direct neutrino mass experiment", March 1996, Nuclear & Astrophysics Laboratory of the University, Oxford, England;
- "Low temperature microcalorimeter development for a neutrino mass experiment", March 1996, Max-Planck-Institut für Physik, Munich, Germany;

Organization of national and international conferences

- Organization of the international workshop "Determination of the absolute electron (anti)-neutrino mass (NuMass 2022)", held in Milan from June 6 to 10, 2022. Chair of the Scientific Committee. About 70 participants.

- Organization of the international congress "18th International Workshop on Low Temperature Detectors (LTD-18)", held in Milan from July 22 to 26, 2019. Chair of the Local Organizing Committee and the Scientific Advisory Board. About 420 participants.

- Organization of the international workshop "5th Workshop on the Physics and Applications of Superconducting Microresonators - WPASM5", held at the Department of Physics of the University of Milano-Bicocca from June 22 to 24, 2016. Member of the Scientific Committee. About 50 participants.

- Scientific organization of the international workshop "The Future of Neutrino Mass Measurements: Terrestrial, Astrophysical, and Cosmological Measurements in the Next Decade - νMass 2013", held at the Department of Physics of the University of Milano-Bicocca from February 4 to 7, 2013. Chair of the Scientific Committee. About 50 participants.

Organization of seminars

- Organization of cycles of interdepartmental seminars on Quantum Sciences and Technologies under the aegis of the BiQuTe Center (since February 2021) (https://biqute.unimib.it/seminars).
- Organization of 3 departmental seminars on topics of interest for the course "Elements of Medical and Environmental Physics" held in the second semester of the Academic Years 2020-21, 2021-22, and 2022-23.

Teaching activity in brief

Courses with responsibility

- Responsible lecturer for a module of the course "Laboratory of Solid State and Quantum Technologies II" (4 credits) of the Master's Degree in Physics at the University of Milano-Bicocca for the academic year 2022/23, 2022/24, 2024/25, and 2025/26.
- Lecturer of the course "Applied Quantum Technologies" (6 credits) of the Master's Degree in Physics at the University of Milano-Bicocca since the academic year 2021/22.
- Lecturer of the course "Elements of Medical and Environmental Physics" (elective course, 6 credits) of the Bachelor's Degree in Physics at the University of Milano-Bicocca since the academic year 2015/16.
- Lecturer of the course "Physics" (elective course, 8 credits) of the Bachelor's Degree in Computer Science at the University of Milano-Bicocca for the academic years 2014/15, 2015/16, 2016/17, 2017/18, 2018/19, 2019/20, and 2020/21.
- Lecturer of a module of the course "Elements of Medical and Environmental Physics" (4-credit module of the 8-credit elective course) of the Bachelor's Degree in Physics at the University of Milano-Bicocca for the academic years 2010/11, 2011/12, 2012/13, and 2014/15.
- Lecturer of the course "Environmental Protection" (5 credits) of the Bachelor's Degree in Physics at the University of Milano-Bicocca for the academic years 2006/07, 2007/08, 2008/09, and 2009/10.
- Responsible lecturer for the second module of the course "Laboratory of Elementary Particle Physics" of the Master's Degree in Physics at the University of Milano-Bicocca for the academic years 2006/07, 2007/08, 2008/09, and 2009/10;
- Adjunct professor in the academic year 1998/99 for the "Cryogenics Laboratory" (4th year of the Physics Degree Course at the University of Milan).

Supervision of research activity of students and young researchers

- Supervisor of 28 Bachelor's theses in Physics (since 2005);

- Supervisor of 2 old system Physics Degree theses and 17 Master's theses in Physics (since 2005);
- Tutor and/or Supervisor of 14 PhD theses in Physics (since 2005);
- Scientific supervisor of 2 Scholarships (University of Milano-Bicocca and INFN);
- Scientific supervisor of 3 Research Grants of the University of Milano-Bicocca, funded by the University;
- Scientific supervisor of 10 Research Grants of the University of Milano-Bicocca, funded by research projects;
- Scientific supervisor of 3 Research Grants of INFN;
- Scientific supervisor of 3 RTD-A of the University of Milano-Bicocca, funded by research projects;
- Scientific supervisor of 1 RTD-B of the University of Milano-Bicocca;
- Supervisor of A. Giachero, winner of MSCA-IF-2020 – Individual Fellowships (Project n. 101027746).

Scientific dissemination and communication

2022 "Still too small to be measured" published in News&Views of Nature Physics (Nat. Phys. 18, 128–129 (2022). https://doi.org/10.1038/s41567-021-01495-7) as a commentary on the article "Direct neutrino-mass measurement with sub-electronvolt sensitivity", The KATRIN Collaboration, Nat. Phys. 18, 160-166 (2022).

2015 Interview given to physicworld.com commenting on the article *Neutrino-mass measurements could benefit from holmium-trapping result* of August 12, 2015 (https://physicsworld.com/a/neutrino-mass-measurements-could-benefit-from-holmium-trapping-result/).

2014 Radio interview on RAI Radio 2 within the program Caterpillar on October 22, 2014, focused on the refrigerator of the CUORE experiment.

2014 Radio interview on Radio Popolare on October 23, 2014, focused on the refrigerator of the CUORE experiment.

2014 Joint press release by INFN and the University of Milano-Bicocca *The coldest cubic meter in the Universe* of October 17, 2014, published on the occasion of the first cooling of the refrigerator of the CUORE experiment and picked up by many media outlets (ANSA, Focus, orgoglionerd.it, oggiscienza.it, Il Giorno, La Stampa, La Repubblica, meteoweb.eu, meteowebcam.it, etc.).

2013 Press release by the University of Milano-Bicocca *Milano-Bicocca, a Grant to measure the mass of the Neutrino*, published on the occasion of the awarding of the HOLMES ERC Advanced Grant and picked up by many media outlets (ANSA, AGI, liberoquotidiano.it, LeScienze, corriereuniv.it, controcampus.it, Scienzainrete, chimici.into, tiscali.it, etc.).

2012 Radio interview on Radio Popolare within the program Millevalvole on January 27, 2012, focused on the Fondazione Cariplo project for the development of superconducting microresonators.

2012 Interview *Una massa oscura* in the magazine Newton Oggi (issue 26 of 2012), focused on the Fondazione Cariplo project for the development of superconducting microresonators.

2012 TV report *Traps for neutrinos* filmed for TG Leonardo in the Cryostats Laboratory and broadcast on RAI 3 on February 20, 2012, on the Fondazione Cariplo project for the development of superconducting microresonators.

2012 Video interview *The beauty of the neutrino* published on BnewsTv, the video channel of the University of Milano-Bicocca on YouTube (https://youtu.be/pF_1SDtL4OA).

2012 Press release by the University of Milano-Bicocca *An "ear" detector to capture the "sound" of neutrinos*, published on the occasion of the awarding of the Fondazione Cariplo funding for the development of superconducting microresonators and picked up by many media outlets (ANSA, Galileonet.it, AGI, LeScienze, Agenord, Secolo XIX, SETTE Corriere della Sera, etc.).

Milano, 27 May 2026

Angelo Nucciotti