



Paolo Gandini

Primo ricercatore, infn sezione di Milano
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EDUCATION

October 2012	D. Phil. in Particle Physics (Experiment: LHCb) Balliol College, University of Oxford, UK
October 2008	Master Degree in Particle Physics (Experiment: BaBar) Università degli Studi di Milano, IT, Grade: 110/110 cum Laude
October 2006	Bachelor Degree in Physics (Experiment: ATLAS) Università degli Studi di Milano, IT, Grade: 110/110 cum Laude

ACADEMIC POSITIONS

- Abilitazione Scientifica Nazionale (Sett Concorsuale 02/A1 - II Fascia - 3° Quadrim)
Validity from 20/09/2022 to 20/09/2032.
- Member of the Doctoral Council of the Physics Department (UNIMI)
From academic year 2021 to present.

Jan 2023 - present	Primo Ricercatore, Istituto Nazionale di Fisica Nucleare, Sezione di Milano, IT
Jul 2017 - Dec 2022	Ricercatore, Istituto Nazionale di Fisica Nucleare, Sezione di Milano, IT
Jan 2015 - Jul 2017	Postdoctoral Research Assistant, University of Oxford, UK
Jul 2016 - Jul 2017	Junior Research Fellowship, St. Cross College, Oxford, UK
Jan 2013 - Jan 2015	Postdoctoral Research Associate, Syracuse University, US
Oct 2012 - Dec 2012	Research Assistant, University of Oxford, UK

SCIENTIFIC ROLES

- I am a member of the LHCb Collaboration at CERN since 2009.
- I am a founding member of the ALADDIN collaboration (established in 2024).

2022 - present	Deputy P.I of the Milan LHCb group
Jan 2022 - present	Responsible of Upstream Tracker (LHCb upgrade): ONLINE monitoring
Jan 2020 - Oct 2021	LHCb speakers' bureau, member of the speaker committee
Mar 2018 - Dec 2021	Responsible for Upstream Tracker (LHCb upgrade) front-end production
Jan 2016 - Oct 2017	Convener of the Central Exclusive Production Group (LHCb)
Jan 2015 - Dec 2018	Expert of the Herschel detector (Trigger, Maintenance, Operation, Performance)
Jan 2015 - Oct 2017	Convener of the Common Tools and Systematic Group (LHCb)
2013 - 2014	Responsible for Upstream Tracker simulation for the LHCb upgrade
2013 - 2015	Responsible for Upstream Tracker testbeams at CERN

AWARDS & GRANTS

September 2019	Ettore Pancini Prize, Italian Physical Society (SIF) € 5,000 Awarded to a young researcher per year, who has obtained significant results in the field of experimental particle/nuclear physics. Mention: award for his determinant contribution to the activities of the LHCb experiment at CERN, in particular for his measurements on spectroscopy and CP violation.
March 2013	Springer Thesis Prize (Springer) € 500 Thesis nominated as an outstanding PhD thesis by the University of Oxford. Published in Springer Theses - the best of the best, ISBN 978-3-319-01029-8
2009 – 2012	JT Hamilton Scholarship in Physics (3 years) , Balliol College, Oxford
2022 – 2023	Progetto Interesse Nazionale: PRIN 202277EWLW Project name: Experiment for DIPOle moments of short-lived heavy fermions at LHC (EDIPO) Amount: Total €231,298.00 (contributo MUR €209,587.00). Role: Research Unit Leader (INFN): assegnato alla research unit €123,789.00 (MUR 113,083.00). Duration: 2 years.
August 2018	Young researcher fund, INFN, IT Project: GLULI. Amount: €20,000 Role: PI. Duration: 2 years.
March 2016 Declined	Marie Curie individual fellow at University of Milan, EU Project: GLUEBALLS. Amount: €168,277.20 Role: PI. Duration: 2 years. Declined due to incompatibility with the INFN position
April 2016 Declined	Ernest Rutherford Fellowships at University of Cambridge, STFC, UK Project: Glueballs, Oddballs and Hybrids. Amount: £ 559,687.00 Role: PI. Duration: 5 years. Declined due to incompatibility with the INFN position

SELECTED PUBLICATIONS

I am a member of the LHCb Collaboration and in its author list from 2009. I am author of all of its physics and upgrade publications and technical documents. I am reviewer of public and internal LHCb documents. I am regular reviewer for international peer-reviewed journals (**e.g APS for Phys. Rev. Lett., Elsevier and other journals**).
This list includes only a selection of publications and public documents in which I have been involved as a major/contact contributor.

2024	The ALADDIN proto-collaboration: Neri, N. and others. Advancements in techniques for measuring dipole moments of short-lived particles at the LHC NIMA 169875 (2024) DOI: https://doi.org/10.1016/j.nima.2024.169875
2024	The ALADDIN proto-collaboration. ALADDIN: An Lhc Apparatus for Direct Dipole moments INvestigation. Letter Of Intent CERN-LHCC-2024-01, LHCC-I-041 . 10.17181/CERN.2G4V.0YAO
2024	LHCb Collaboration: Aaij, R. and others. The LHCb Upgrade I JINST 19 P05065 DOI: 10.1088/1748-0221/19/05/P05065
2023	LHCb Collaboration: Aaij, R. and others. Observation of new baryons in the $\Xi_b^- \pi^+ \pi^-$ and $\Xi_b^0 \pi^+ \pi^-$ systems. Phys. Rev. Lett. 131, 171901 ePrint: 2307.13399 DOI: 10.1103/PhysRevLett.131.171901
2022	Beteta, C. and others. The SALT, readout ASIC for silicon strip sensors of upstream tracker in the upgraded LHCb. Sensors (2022) 22(1) 107 DOI: 10.3390/s22010107
2020	LHCb Collaboration: Aaij, R. and others. Measurement of CP observables in $B^\pm \rightarrow D^{(*)} h^\pm$ decays using two-body D final states JHEP 04 (2021) 81 ePrint: 2012.09903 DOI: 10.1007/JHEP04(2021)081

2020	LHCb Collaboration: Aaij, R. and others. Observation of a new baryon state in the $\Lambda_b^0 \pi^+ \pi^-$ mass spectrum. JHEP 06 (2020) 136 ePrint: 2002.05112 DOI: 10.1007/JHEP06(2020)136
2019	LHCb Collaboration: Aaij, R. and others. Observation of new resonances in the $\Lambda_b^0 \pi^+ \pi^-$ system. PRL 123 (2019) 15, 152001 ePrint: 1907.13598 DOI: 10.1103/PhysRevLett.123.152001
2019	LHCb Collaboration: Aaij, R. and others. Observation of two resonances in $\Lambda_b^0 \pi^\pm$ and precise measurement of Σ_b^\pm and $\Sigma_b^{*\pm}$ properties. PRL 122 (2019) 1, 012001 ePrint: 1809.07752 DOI: 10.1103/PhysRevLett.122.012001
2018	LHCb Collaboration: Aaij, R. and others. Search for beautiful tetraquarks in the $\Upsilon(1S) \mu \mu$ invariant-mass spectrum. JHEP 10 (2018) 086 ePrint: 1806.09707 DOI: 10.1007/JHEP10(2018)086
2018	LHCb Collaboration: Aaij, R. and others. Central exclusive production of J/ψ and $\psi(2S)$ mesons in pp collisions at $\sqrt{s} = 13$ TeV. JHEP 10 (2018) 167 ePrint: 1806.04079 DOI: 10.1007/JHEP10(2018)167
2018	Akiba, K. and others. The HeRSChel detector: high-rapidity shower counters for LHCb. JINST 13 (2018) 04, P04017 ePrint: 1801.04281 DOI: 10.1088/1748-0221/13/04/P04017
2017	LHCb Collaboration: Aaij, R. and others. Measurement of CP observables in $B^\pm \rightarrow D(*)K^\pm$ and $B^\pm \rightarrow D(*)\pi^\pm$ decays. PLB 777 (2018) 16-30 ePrint: 1708.06370 DOI: 10.1016/j.physletb.2017.11.070
2017	LHCb Collaboration: Aaij, R. and others. χ_{c1} and χ_{c2} resonance parameters with the decays $\chi_{c1,c2} \rightarrow J/\psi \mu^+ \mu^-$. PRL 119 (2017) 22, 221801 ePrint: 1709.04247 DOI: 10.1103/PhysRevLett.119.221801
2016	LHCb Collaboration: Aaij, R. and others. Measurement of the properties of the Ξ_b^* baryon. JHEP 05 (2016) 161 ePrint: 1604.03896 DOI: 10.1007/JHEP05(2016)161
2016	LHCb Collaboration: Aaij, R. and others. Measurement of the CKM angle γ from a combination of LHCb analyses JHEP 12 (2016) 087 ePrint: 1611.03076 DOI: 10.1007/JHEP12(2016)087
2015	LHCb Collaboration: Aaij, R. and others. Evidence for the strangeness-changing weak decay $\Xi_b \rightarrow \Lambda_b^0 \pi^-$ PRL 115 (2015) 24, 241801 ePrint: 1510.03829 DOI: 10.1103/PhysRevLett.115.241801
2015	Abba, A. and others. Testbeam studies of pre-prototype silicon strip sensors for the LHCb UT upgrade project NIM.A 806 (2016) 244-257 ePrint: 1506.00229 DOI: 10.1016/j.nima.2015.10.031
2014	LHCb Collaboration: Aaij, R. and others. Measurement of the \bar{B}_s^0 meson lifetime in $D_s^+ \pi^-$ decays. PRL 113 (2014) 17, 172001 ePrint: 1407.5873 DOI: 10.1103/PhysRevLett.113.172001
2014	LHCb Collaboration LHCb Tracker Upgrade Technical Design Report CERN-LHCC-2014-001, LHCb-TDR-015 , ISBN:9789290833970
2013	P. Gandini. Book: Observation of CP Violation in $B^\pm \rightarrow DK^\pm$ Decays Springer Theses - the best of the best ISBN 978-3-319-01029-8, DOI: 10.1007/978-3-319-01029-8
2013	LHCb Collaboration: Aaij, R. and others. Measurement of the CKM angle γ from a combination of $B \rightarrow Dh$ analyses. PLB 726 (2013) 151-163 ePrint: 1305.2050 DOI: 10.1016/j.physletb.2013.08.020

2013	M. Adinolfi and others. Performance of the LHCb RICH detector at the LHC. EPJC 73 (2013) 2431 ePrint: 1211.6759 DOI: 10.1140/epjc/s10052-013-2431-9
2012	LHCb Collaboration: Aaij, R. and others. Observation of CP violation in $B^\pm \rightarrow DK^\pm$ decays PLB 712 (2012) 203-212 e-Print: 1203.3662 DOI: 10.1016/j.physletb.2012.04.060
2009	BaBar Collaboration: Aubert, B. and others. Observation and polarization measurement of B^0 meson decay to $a_1^+(1260) a_1^-(1260)$ decay PRD 80 (2009) 092007 ePrint: 0907.1776 DOI: 10.1103/PhysRevD.80.092007

TEACHING & SUPERVISION

I have been tutor (exerciser) in two colleges at University of Oxford, teaching Particle Physics for third year students. I am involved in the supervision of several Master and PhD students. I co-tutor students for engineering master degree theses.

2024-2025	Line manager of 2+ postdocs
2024	Supervisor of Master student in Nuclear Engineering (external)
2020	Bachelor Student supervisor, Università degli Studi di Milano, IT
2019	DOE-INFN summer exchange program 2019: supervisor
2018	Series of seminars about Flavour Physics, Università degli Studi di Milano, IT
2017	Tutor: 3 rd Year Particle Physics, St Peter's College, Oxford, UK
2016 - 2017	Tutor: 3 rd Year Particle Physics, Keble College, Oxford, UK

OUTREACH - (TERZA MISSIONE INFN)

2023	Progetto Nuvoletta (portable cloud chamber)
2022 — present	Progetto Lab2go (https://web.infn.it/lab2go/) Referente della sezione INFN di Milano. Activities in several schools of the city (e.g Liceo Donatelli-Pascal, Piero Bottoni, etc). Il progetto PCTO – LAB2GO è finalizzato alla valorizzazione dei laboratori, dei musei delle scuole secondarie superiori.
2021	INFN course on Streaming Platforms for science Course on science communication for Youtube and other streaming services.
2020	Physics and Communication - Outreach in the EU grants Course of science communication organized by INFN for outreach in international grants. Organized by INFN.
July 2016	Scientific Fair: Antimatter Matters (Summer Science Exhibition 2016) Dates: 4 July - 10 July 2016. Location: Royal Society, London. http://antimatter-matters.org/ Stall at the Summer Science Exhibition organized by the Royal Society, visited by more than 10k persons. This stand has been touring the UK for several national science festivals.
2013 — present	CERN and LHCb official guide Official guide at CERN and the LHCb experiment Part of the organization of the CERN Open Days during long shut-down1 (LHCb)
2010	Lectures series “Building a Business”, at Said Business School, Oxford Series of lectures on how to make start-up companies/patents and attract investors when working in academia. Organized by the University of Oxford for students and postdoc in the Science field.
August 2009	BRIGHT CONFERENCE 2009, University of Milan. Participant and member of the organizing committee.

August 2008	BRIGHT CONFERENCE 2008 University of Helsinki. Member of the Italian Delegation of Università degli studi di Milano.
CONFERENCES, SEMINARS & POSTERS	
13 Nov 2024	Plenary Talk at WFAE, Bologna, IT Title: "Spectroscopy of new heavy baryons" https://agenda.infn.it/event/41047/contributions/243663/
3rd Jun 2024	Plenary talk at LHCP2024, Boston, USA Title: "Hadron spectroscopy and hadron-hadron interaction" (all LHC experiments) https://indico.cern.ch/event/1253590/contributions/5814187/
3rd Jun 2024	Parallel talk at LHCP2024, Boston USA Title: "Heavy flavor spectroscopy studies at LHCb" on behalf of the LHCb Collaboration https://indico.cern.ch/event/1253590/contributions/5839207/
8th Nov 2023	Invited talk at WPCF 2023, Catania, Italy Title: "LHCb on technical aspects how to search and find resonances" https://agenda.infn.it/event/33324/contributions/214266/
1st Jun 2023	Invited talk at the workshop Physics of Heavy Baryons, Munich, Germany Title: "New heavy baryons from LHCb" on behalf of the LHCb Collaboration https://indico.ph.tum.de/event/7286/contributions/7394/
25th Apr 2023	CERN Seminar, CERN Title: "A decade of spectroscopy at LHCb" on behalf of the LHCb Collaboration https://indico.cern.ch/event/1231803/
27th Mar 2023	Plenary talk at Moriond QCD, La Thuile, Italy Title: "Heavy flavour spectroscopy at LHCb" on behalf of the LHCb Collaboration https://cds.cern.ch/record/2854788
16th May 2022	Parallel talk at LHCP, Taipei (online) Title: "Exotic hadrons at LHC (experiment)", CINCO talk (all LHC experiments) https://indico.cern.ch/event/1109611/contributions/4773228/
7th Sep 2021	Workshop PWA/ATHOS, Bristol, UK (online) Title: "Hadron Spectroscopy at LHCb" on behalf of the LHCb Collaboration https://indico.cern.ch/event/885396/contributions/4373558/
19th Aug 2021	Parallel Talk at Lomonosov Conference, Moscow, Russia (online) Title: "Spectroscopy at LHCb" on behalf of the LHCb Collaboration https://lomcon.ru/files/20LomCon/presentations/19Au_A/Gandini.pdf
22nd Jan 2020	Plenary talk at the International Winter Meeting on Nuclear Physics, Bormio, Italy Title: "Hadron Physics in LHCb" on behalf of the LHCb Collaboration https://indico.mitp.uni-mainz.de/event/191/contributions/3200/
21st May 2019	Parallel talk at LHCP, Puebla, Mexico Title: "Recent results on heavy flavor production" on behalf of the LHCb Collaboration https://indico.cern.ch/event/687651/contributions/3429071/
20th May 2019	Plenary talk at LHCP, Puebla, Mexico Title: "CP violation in beauty and charm" on behalf of the LHCb Collaboration https://indico.cern.ch/event/687651/contributions/3399010/
20th Sep 2018	Poster at TWEPP2018, Antwerp, Belgium Title: "A novel 4D fast track finding system using precise space and time information" https://indico.cern.ch/event/697988/contributions/3056083/
7th July 2018	Parallel talk at ICHEP2018, Seoul, Korea Title: "Searches for exotic baryonic states at LHCb" on behalf of the LHCb Collaboration https://indico.cern.ch/event/686555/contributions/2960198/

6th July 2018	Poster at ICHEP2018, Seoul, Korea Title: Central Exclusive Production at LHCb on behalf of the Herschel group https://indico.cern.ch/event/686555/contributions/2960196/
6th Jun 2017	Plenary talk at FPCP2017, Prague, Czech Republic Title: “Overview of hadron flavour production” on behalf of the LHCb Collaboration https://indico.cern.ch/event/586719/contributions/2531265/
23rd Mar 2016	Plenary talk at Moriond QCD, La Thuile, Italy Title: “Heavy flavour spectroscopy at LHCb” on behalf of the LHCb Collaboration https://moriond.in2p3.fr/QCD/2016/WednesdayMorning/Gandini.pdf
23rd Jul 2015	Parallel Talk at EPS2015, Vienna, Austria Title: “Central exclusive meson production at LHCb” on behalf of the LHCb Collaboration https://indico.cern.ch/event/356420/contributions/1764245/
14th Jul 2014	Plenary Talk at Beauty2014, Edinburgh, UK Title: “Lifetimes of B hadrons” on behalf of the LHCb Collaboration https://indico.cern.ch/event/308116/contributions/1679423/
17th Jul 2014	Poster at Beauty2014, Edinburgh, UK Title: “LHCb Upstream Tracker” https://indico.cern.ch/event/308116/contributions/1679398/
15th Oct 2013	Plenary Talk at Implications workshop of LHCb measurements, CERN Title: “Experimental overview of the CKM unitarity triangle angle” on behalf of the LHCb Collaboration, joint meeting with the theory community https://indico.cern.ch/event/255380/timetable/?view=lhcb_meeting
18th Jul 2013	Parallel Talk at EPS2013, Stockholm, Sweden Title: “Measurements of $B \rightarrow DK$ decays to constrain the CKM unitarity triangle angle” on behalf of the LHCb Collaboration https://indico.cern.ch/event/218030/contributions/451038/
4th Apr 2012	Plenary Talk at IoP Joint HEPP and APP Meeting 2012, London, UK (National Meeting) Title: “Observation of CP violation in $B \rightarrow DK$ decays at LHCb” representative of the LHCb collaboration in the UK hep community https://indico.cern.ch/event/175304/contributions/1439378/
21st Feb 2012	Plenary Talk at Lake Louise Winter Institute , Lake Louise, Alberta, Canada Title: “Observation of CP violation in $B \rightarrow DK$ decays”on behalf of the LHCb Collaboration https://cds.cern.ch/record/1422422
Jun 2010	Plenary Talk at IoP meeting and LHCb-UK physics meeting, Glasgow, UK Title: “ADS modes with $B \rightarrow DK$ ”
30th Jul 2009	Parallel Talk at DPF2009, Wayne State University, Detroit, US Title: “Charmless hadronic B decays into Vector, Axial Vector and Tensor states at BaBar” on behalf of the BaBar collaboration Parallel Talk at DPF2009, Wayne State University, Detroit
Sep 2008	Talk at XCIV National Congress of SIF, Italian Physical Society, Genova, Italy Title: “Experimental Measurements of the angles of the Unitary Triangle”
CONFERENCE ORGANIZING COMMITTEE	
18 Sep 2024	Organizer of the 4th ALADDIN & TWOCRYST workshop, Valencia, Spain https://indico.ific.uv.es/event/7688/
28th Mar 2023	Convener of QCD Session at Moriond QCD, La Thuile, Italy https://cds.cern.ch/record/2854788
1st Feb 2023	LHCb-Italia (national meeting) Head of the organizing committee: https://indico.cern.ch/event/1239781/overview

October 2016

Converner of the LHCb/theory Implication Workshop
Organization of the session “Not only flavour: precision measurements and new physics”
