

Curriculum Vitae

Enrico Bertuzzo

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1 Informazioni generali

- Attualmente lavoro come professore associato presso il dipartimento di Scienze Fisiche, Informatiche e Matematiche dell'università di Modena e Reggio Emilia (UNIMORE);
- Lingue parlate:
 - Italiano (madrelingua);
 - Inglese (livello C1);
 - Portoghese (livello C2).

2 Posizioni

Year	Activity	Institution
01/09/2023-presente	Professore associato	UNIMORE
10/01/2019-present	Professore associato	USP, Instituto de Física
29/02/2015-09/01/2019	Professor	USP, Instituto de Física
2013-2014	Postdoc	IFAE, Barcelona
2011-2013	Postdoc	IPHT, CEA-Paris
2009-2011	Dottorato	Scuola Normale Superiore, Pisa
2007-2008	Laurea magistrale	University of Padua
2002-2006	Laurea triennale	University of Padua

Supervisore del dottorato: Prof. Riccardo Barbieri (Scuola Normale Superiore, Pisa).

Supervisore della tesi di laurea magistrale: Prof. Ferruccio Feruglio (University of Padua).

3 Ricerca

3.1 Produzione scientifica

Segue la lista degli articoli pubblicati. **Nel mio campo di ricerca, gli autori sono elencati in ordine alfabetico.**

1. E. Bertuzzo, G. M. Salla and A. Tesi, “The effects of non Bunch-Davies initial conditions on gravitationally produced relics,” [arXiv:2603.03430 [gr-qc]].
2. E. Bertuzzo, C. Csaki and F. Huller, “Electroweak Precision Constraints on Dark Photon Models with Generalized Mixing,” JHEP **03** (2026), 155 doi:10.1007/JHEP03(2026)155 [arXiv:2507.16888 [hep-ph]].
3. E. Bertuzzo and M. Frigerio, “Two portals to GeV sterile neutrinos: Dipole versus mixing,” SciPost Phys. **18** (2025) no.4, 140 doi:10.21468/SciPostPhys.18.4.140 [arXiv:2412.10101 [hep-ph]].
4. D. Barducci, E. Bertuzzo, M. Taoso, C. A. Ternes and C. Toni, “Illuminating the dark: mono- γ signals at NA62,” JHEP **10** (2024), 016 doi:10.1007/JHEP10(2024)016 [arXiv:2406.17599 [hep-ph]].

5. E. Bertuzzo, T. Sassi and A. Tesi,
“Complex Dark Photon Dark Matter EFT,”
(arXiv:2406.14437 [hep-ph]).
6. E. Bertuzzo, Y. F. Perez-Gonzalez, G. M. Salla and R. Z. Funchal,
“Gravitationally produced Dark Matter and primordial black holes,”
(arXiv:2405.17611 [hep-ph]).
7. E. Bertuzzo, C. Grojean and G. M. Salla,
“ALPs, the on-shell way,”
JHEP **05** (2024), 175 doi:10.1007/JHEP05(2024)175
(arXiv:2311.16253 [hep-ph]).
8. D. Barducci, E. Bertuzzo, M. Taoso and C. Toni, JHEP **03** (2023), 239 doi:10.1007/JHEP03(2023)239
(arXiv:2209.13469 [hep-ph]).
9. J. L. Feng, F. Kling, M. H. Reno, J. Rojo, D. Soldin, L. A. Anchordoqui, J. Boyd, A. Ismail, L. Harland-Lang and K. J. Kelly, *et al.*
“The Forward Physics Facility at the High-Luminosity LHC,”
(arXiv:2203.05090 [hep-ex]).
10. E. Bertuzzo, A. L. Foguel, G. M. Salla and R. Z. Funchal,
“New limits on leptophilic ALPs and Majorons from ArgoNeuT,”
(arXiv:2202.12317 [hep-ph]). Submitted to PRL.
11. E. Bertuzzo, A. Scaffidi and M. Taoso,
“Searching for inelastic dark matter with future LHC experiments,”
(arXiv:2201.12253 [hep-ph]). Accepted for publication in JHEP.
12. D. Barducci and E. Bertuzzo,
“The see-saw portal at future Higgs factories: the role of dimension six operators,”
(arXiv:2201.11754 [hep-ph]). Accepted for publication in JHEP.
13. E. Bertuzzo, G. G. di Cortona and L. M. D. Ramos,
“Probing light vector mediators with coherent scattering at future facilities,”
(arXiv:2112.04020 [hep-ph]). Accepted for publication in JHEP.
14. D. Barducci, E. Bertuzzo, G. G. di Cortona and G. M. Salla,
“Dark photon bounds in the dark EFT,”
JHEP **12** (2021), 081 doi:10.1007/JHEP12(2021)081 [arXiv:2109.04852 [hep-ph]].
15. G. F. S. Alves, E. Bertuzzo and G. M. Salla,
“An on-shell perspective on neutrino oscillations and non-standard interactions,”
(arXiv:2103.16362 [hep-ph]).
16. D. Barducci, E. Bertuzzo, A. Caputo, P. Hernandez and B. Mele,
“The see-saw portal at future Higgs Factories,”
JHEP **03** (2021), 117 doi:10.1007/JHEP03(2021)117 (arXiv:2011.04725 [hep-ph]).
17. D. Barducci, E. Bertuzzo and M. A. Tupia,
“Gravitational tests of electroweak relaxation,”
JHEP **07** (2021), 119 doi:10.1007/JHEP07(2021)119 [arXiv:2011.05795 [astro-ph.CO]].

18. E. Bertuzzo and M. Taoso,
“Probing light dark scalars with future experiments,”
JHEP **03** (2021), 272 doi:10.1007/JHEP03(2021)272 [arXiv:2011.04735 [hep-ph]].
19. D. Barducci, E. Bertuzzo, A. Caputo and P. Hernandez,
“Minimal flavor violation in the see-saw portal,”
JHEP **06** (2020), 185 doi:10.1007/JHEP06(2020)185 [arXiv:2003.08391 [hep-ph]].
20. M. Arteaga, E. Bertuzzo, C. Caniu Barros and Z. Tabrizi,
“Operators from flavored dark sectors running to low energy,”
Phys. Rev. D **99** (2019) no.3, 035022 doi:10.1103/PhysRevD.99.035022 [arXiv:1810.04747 [hep-ph]].
21. H. Beauchesne, E. Bertuzzo and G. Grilli Di Cortona,
“Dark matter in Hidden Valley models with stable and unstable light dark mesons,”
JHEP **04** (2019), 118 doi:10.1007/JHEP04(2019)118 [arXiv:1809.10152 [hep-ph]].
22. E. Bertuzzo, S. Jana, P. A. N. Machado and R. Zukanovich Funchal,
“Neutrino Masses and Mixings Dynamically Generated by a Light Dark Sector,”
Phys. Lett. B **791** (2019), 210-214 doi:10.1016/j.physletb.2019.02.023 [arXiv:1808.02500 [hep-ph]].
23. E. Bertuzzo, S. Jana, P. A. N. Machado and R. Zukanovich Funchal,
“Dark Neutrino Portal to Explain MiniBooNE excess,”
Phys. Rev. Lett. **121** (2018) no.24, 241801 doi:10.1103/PhysRevLett.121.241801 [arXiv:1807.09877 [hep-ph]].
24. A. Belyaev, E. Bertuzzo, C. Caniu Barros, O. Eboli, G. Grilli Di Cortona, F. Iocco and A. Pukhov,
“Interplay of the LHC and non-LHC Dark Matter searches in the Effective Field Theory approach,”
Phys. Rev. D **99** (2019) no.1, 015006 doi:10.1103/PhysRevD.99.015006 [arXiv:1807.03817 [hep-ph]].
25. H. Beauchesne, E. Bertuzzo, G. Grilli Di Cortona and Z. Tabrizi,
“Collider phenomenology of Hidden Valley mediators of spin 0 or 1/2 with semivisible jets,”
JHEP **08** (2018), 030 doi:10.1007/JHEP08(2018)030 [arXiv:1712.07160 [hep-ph]].
26. M. Arteaga, E. Bertuzzo, Y. F. Perez-Gonzalez and R. Zukanovich Funchal,
“Impact of Beyond the Standard Model Physics in the Detection of the Cosmic Neutrino Background,”
JHEP **09** (2017), 124 doi:10.1007/JHEP09(2017)124 [arXiv:1708.07841 [hep-ph]].
27. E. Bertuzzo, C. J. Caniu Barros and G. Grilli di Cortona,
“MeV Dark Matter: Model Independent Bounds,”
JHEP **09** (2017), 116 doi:10.1007/JHEP09(2017)116 [arXiv:1707.00725 [hep-ph]].
28. E. Bertuzzo, P. A. N. Machado, Z. Tabrizi and R. Zukanovich Funchal,
“A Neutrinophilic 2HDM as a UV Completion for the Inverse Seesaw Mechanism,”
JHEP **11** (2017), 004 doi:10.1007/JHEP11(2017)004 [arXiv:1706.10000 [hep-ph]].

29. E. Bertuzzo, P. A. N. Machado, Y. F. Perez-Gonzalez and R. Zukanovich Funchal,
“Constraints from Triple Gauge Couplings on Vectorlike Leptons,”
Phys. Rev. D **96** (2017) no.3, 035035 doi:10.1103/PhysRevD.96.035035 [arXiv:1706.03073 [hep-ph]].
30. H. Beauchesne, E. Bertuzzo and G. Grilli di Cortona,
“Constraints on the relaxion mechanism with strongly interacting vector-fermions,”
JHEP **08** (2017), 093 doi:10.1007/JHEP08(2017)093 [arXiv:1705.06325 [hep-ph]].
31. E. Bertuzzo, F. F. Deppisch, S. Kulkarni, Y. F. Perez Gonzalez and R. Zukanovich Funchal,
“Dark Matter and Exotic Neutrino Interactions in Direct Detection Searches,”
JHEP **04** (2017), 073 doi:10.1007/JHEP04(2017)073 [arXiv:1701.07443 [hep-ph]].
32. E. Bertuzzo, P. A. N. Machado and M. Taoso,
“Diphoton excess in the 2HDM: Hastening towards instability and the nonperturbative regime,”
Phys. Rev. D **94** (2016) no.11, 115006 doi:10.1103/PhysRevD.94.115006 [arXiv:1601.07508 [hep-ph]].
33. D. Bečirević, E. Bertuzzo, O. Sumensari and R. Zukanovich Funchal,
“Can the new resonance at LHC be a CP-Odd Higgs boson?,”
Phys. Lett. B **757** (2016), 261-267 doi:10.1016/j.physletb.2016.03.073 [arXiv:1512.05623 [hep-ph]].
34. E. Bertuzzo, Y. F. Perez G., O. Sumensari and R. Zukanovich Funchal,
“Limits on Neutrinophilic Two-Higgs-Doublet Models from Flavor Physics,”
JHEP **01** (2016), 018 doi:10.1007/JHEP01(2016)018 [arXiv:1510.04284 [hep-ph]].
35. G. Ricciardi, A. Arbey, E. Bertuzzo, A. Carmona, R. Dermisek, T. Huber, T. Hurth, Y. Grossman, J. Kersten and E. Lunghi, *et al.*
“Flavour, Electroweak Symmetry Breaking and Dark Matter: state of the art and future prospects,”
Eur. Phys. J. Plus **130** (2015) no.10, 209 doi:10.1140/epjp/i2015-15209-y [arXiv:1507.05029 [hep-ph]].
36. A. Andreazza, M. Anselmino, P. Azzi, W. Baldini, R. Barbieri, F. Bedeschi, E. Bertuzzo, C. Biino, M. Bochicchio and W. Bonivento, *et al.*
“What Next: White Paper of the INFN-CSN1,”
Frascati Phys. Ser. **60** (2015), 1-302
37. E. Bertuzzo and C. Frugiuele,
“Natural SM-like 126 GeV Higgs boson via nondecoupling D terms,”
Phys. Rev. D **93** (2016) no.3, 035019 doi:10.1103/PhysRevD.93.035019 [arXiv:1412.2765 [hep-ph]].
38. E. Bertuzzo, C. Frugiuele, T. Gregoire and E. Ponton,
“Dirac gauginos, R symmetry and the 125 GeV Higgs,”
JHEP **04** (2015), 089 doi:10.1007/JHEP04(2015)089 [arXiv:1402.5432 [hep-ph]].

39. E. Bertuzzo,
 “SUSY after LHC8: a brief overview,”
 EPJ Web Conf. **60** (2013), 18001 doi:10.1051/epjconf/20136018001 [arXiv:1307.0318 [hep-ph]].
40. E. Bertuzzo, P. A. N. Machado and R. Z. Funchal,
 “Neutrino Mass Matrix Textures: A Data-driven Approach,”
 JHEP **06** (2013), 097 doi:10.1007/JHEP06(2013)097 [arXiv:1302.0653 [hep-ph]].
41. E. Bertuzzo, P. A. N. Machado and R. Zukanovich Funchal,
 “Can New Colored Particles Illuminate the Higgs?,”
 JHEP **02** (2013), 086 doi:10.1007/JHEP02(2013)086 [arXiv:1209.6359 [hep-ph]].
42. L. G. Almeida, E. Bertuzzo, P. A. N. Machado and R. Zukanovich Funchal,
 “Does $H \rightarrow \gamma\gamma$ Taste like vanilla New Physics?,”
 JHEP **11** (2012), 085 doi:10.1007/JHEP11(2012)085 [arXiv:1207.5254 [hep-ph]].
43. E. Bertuzzo, T. S. Ray, H. de Sandes and C. A. Savoy,
 “On Composite Two Higgs Doublet Models,”
 JHEP **05** (2013), 153 doi:10.1007/JHEP05(2013)153 [arXiv:1206.2623 [hep-ph]].
44. E. Bertuzzo and C. Frugiuele,
 “Fitting Neutrino Physics with a $U(1)_R$ Lepton Number,”
 JHEP **05** (2012), 100 doi:10.1007/JHEP05(2012)100 [arXiv:1203.5340 [hep-ph]].
45. E. Bertuzzo and M. Farina,
 “Detecting the Higgs boson(s) in λ SUSY,”
 Eur. Phys. J. C **72** (2012), 2054 doi:10.1140/epjc/s10052-012-2054-6 [arXiv:1112.2190 [hep-ph]].
46. E. Bertuzzo,
 “On the MSSM with hierarchical squark masses and a heavier Higgs boson,”
 Nuovo Cim. C **034S1** (2011), 15-21 doi:10.1393/ncc/i2011-11010-1 [arXiv:1106.3253 [hep-ph]].
47. E. Bertuzzo and M. Farina,
 “Higgs boson signals in λ -SUSY with a Scale Invariant Superpotential,”
 Phys. Rev. D **85** (2012), 015011 doi:10.1103/PhysRevD.85.015011 [arXiv:1105.5389 [hep-ph]].
48. E. Bertuzzo,
 “Supersymmetric Models with a hierarchical squark spectrum and a heavy Higgs boson,”
49. E. Bertuzzo, M. Farina and P. Lodone,
 “On the QCD corrections to Delta F=2 FCNC in the Supersymmetric SM with hierarchical squark masses,”
 Phys. Lett. B **699** (2011), 98-101 doi:10.1016/j.physletb.2011.03.062 [arXiv:1011.3240 [hep-ph]].

50. R. Barbieri, E. Bertuzzo, M. Farina, P. Lodone and D. Zhuridov,
 “Minimal Flavour Violation with hierarchical squark masses,”
 JHEP **12** (2010), 070 [erratum: JHEP **02** (2011), 044] doi:10.1007/JHEP12(2010)070
 [arXiv:1011.0730 [hep-ph]].
51. E. Bertuzzo, P. Di Bari and L. Marzola,
 “The problem of the initial conditions in flavoured leptogenesis and the tauon N_2 -
 dominated scenario,”
 Nucl. Phys. B **849** (2011), 521-548 doi:10.1016/j.nuclphysb.2011.03.027 [arXiv:1007.1641
 [hep-ph]].
52. R. Barbieri, E. Bertuzzo, M. Farina, P. Lodone and D. Pappadopulo,
 “A Non Standard Supersymmetric Spectrum,”
 JHEP **08** (2010), 024 doi:10.1007/JHEP08(2010)024 [arXiv:1004.2256 [hep-ph]].
53. E. Bertuzzo, P. Di Bari, F. Feruglio and E. Nardi,
 “Flavor symmetries, leptogenesis and the absolute neutrino mass scale,”
 JHEP **11** (2009), 036 doi:10.1088/1126-6708/2009/11/036 [arXiv:0908.0161 [hep-
 ph]].

3.2 Finanziamenti vinti

- FAR UNIMORE (con Guido Goldoni),
 2026-2028, €49.000
- Progetto di ricerca tematico FAPESP (con I. Albuquerque e E. Moura Santos),
 2023-2028, R\$ 879.831,25 + \$ 317.087,90
- Borsa per produttività nella ricerca CNPq, livello 2
 2021-2023, R\$ 39.600,00
- Borsa per passare un anno facendo ricerca presso il King’s College (Londra)
 2020, US\$ 32.534
- Progetto di ricerca tematico FAPESP (con G. Burdman, O. Éboli e R. Zukanovich-
 Funchal),
 2019-2025, R\$ 1.005.943,94
- Borsa per produttività nella ricerca CNPq, livello 2
 2018-2020, R\$ 39.600,00
- Borsa di ricerca FAPESP per giovani ricercatori
 2016-2020, R\$ 72.360,79
- Borsa per produttività nella ricerca CNPq, livello 2
 2015-2017, R\$ 39.600,00

FAPESP è una agenzia di supporto alla ricerca dello stato di Sao Paulo (Brasile), mentre CNPq è una agenzia del governo federale brasiliano.

3.3 Seminari e lezioni

Ho dato oltre 50 seminari in varie istituzioni in differenti stati, tra cui Italia, Stati Uniti, Regno Unito, Francia, Germania, Spagna, Polonia, Argentina, Brasile.

1. *News on Gravitational Particle Production*, seminar at the University of São Paulo (June 2026);
2. *News on Gravitational Particle Production*, seminar at the University of Torino (March 2026);
3. *News on Gravitational Particle Production*, seminar at the University of Napoli (December 2025);
4. *Two portals to GeV sterile neutrinos: dipole vs mixing*, seminar at the University of Pisa (February 2025);
5. *Gravitationally produced DM & Primordial black holes*, seminar at IAP, Paris (January 2025);
6. *Two portals to GeV sterile neutrinos: dipole vs mixing*, seminar at the Sorbonne University, Paris (January 2025);
7. *The future of (light) dark new physics*, 2nd FCC Italy & France Workshop - Venice (November 2024);
8. *Sterile dipoles*, seminar at the University of Padova, Italy (June 2024);
9. *Sterile dipoles*, seminar at the University of Durham, UK (May 2024);
10. *Sterile dipoles*, seminar at the University of Bologna, Italy (February 2024);
11. *The landscape of Dark Matter's models*, invited lecture at the “Multimessenger school”, Principia Institute, Sao Paulo (May 2023);
12. *Inelastic dark sectors at the lifetime frontier*, invited talk at the “Workshop on the nature of Dark Matter”, ICTP-SAIFR (November 2022);
13. *What is our Universe made of?*, colloquium at the University of Modena and Reggio Emilia, Italy (May 2022);
14. *The physics of Dark Matter*, summer lecture at the Physics institute of São Paulo, Brazil (March 2022);
15. *Relaxion Physics*, workshop SILAF AE XII3/4, Brasil (November 2021);
16. *Dark photon bounds in the dark EFT*, seminar at Fermilab, Chicago, USA (October 2021);
17. *Portals to the dark world*, colloquium at the Physics Institute of the University of São Paulo (September 2021);
18. *Neutrino oscillations the on-shell way*, seminar at the “NuCo 2021” workshop (July 2021);

19. *Neutrino oscillations without mass diagonalization nor Lagrangians*, seminar at the “PhenoBR” workshop (June 2021);
20. *Where in the world are all the other particles?*, seminar at the “1st International Meeting on Theoretical and Applied Physics - IMTAP”, National University of Callao, Peru (May 2021);
21. *Coherent scattering: a window into neutrino and dark matter physics*, seminar at the University of Wroclaw, Poland (March 2021);
22. *Can gravitational waves tell us anything about the hierarchy problem?*, seminar at the department of Mathematical Physics of the University of São Paulo, Brazil (September 2020);
23. *Introduction to the dark arts*, colloquium at the department of physics of the University of Modena, Italy (June 2020);
24. *Aspects of Dark Sectors: Dark Matter and Neutrino Mass Generation*, seminar at King’s College London, United Kingdom (April 2020);
25. *Light dark sectors and neutrino mass generation*, seminar at the “Neples 2019” workshop in Seul, South Korea (September 2019);
26. *Fear of the Dark (Matter)*, colloquium at the Federal University ABC, Santo Andre, Brazil (July 2019);
27. *Dark Matter model building*, lectures at the Dark Matter Flash School, ICTP-SAIFR (November 2018);
28. *The dark side of the forces*, colloquium at the University of Campinas, Campinas, Brazil (September 2018);
29. *Dark Matter: where do we stand*, colloquium at PUC, Rio de Janeiro, Brazil (September 2018);
30. *BMS: future directions*, seminar at the workshop “PhenoEXP 2018, Buenos Aires, Argentina (May 2018);
31. *Proposals for New Searches and Unexplored Signatures*, workshop "LHC Chapter II", Natal (RN) (November 2017);
32. *Dark Matter: past, present and future*, Congresso Paulo Leal de Física Teórica, ICTP SAIFR (October 2017);
33. *Dark matter: new challenges, new avenues*, Colloquium DFN, IFUSP (August 2017);
34. *Fear of the Dark (Matter)*, Colloquium IFUSP (May 2017);
35. *The Standard Model of Particle Physics*, lectures at the XIX Swieca School (Marelias, Brasil) (February 2017);
36. *Dark Matter and Exotic Neutrino Interactions in Direct Detection Searches*, Jussieu - Paris, France (February 2017);

37. *SUSY naturalness facing the Higgs couplings*, IFT/ICTP-SAIFR (June 2015);
38. *Hiding Supersymmetry Naturalness from the Higgs Coupling Measurements*, Colloquium DFMA, IFUSP (February 2015);
39. *Naturally going beyond the MSSM: non-decoupling D-terms*, IPTH Saclay - France (December 2014);
40. *Supersymmetry and naturalness*, workshop "Flavour, Electroweak Symmetry Breaking and Dark Matter: state of the art and future prospects", Capri (May 2014);
41. *Dirac gauginos, R symmetry and the 125 GeV Higgs*, IFAE Barcelona, Spain (November 2013);
42. *Composite Two Higgs doublet models*, WIN workshop, Natál (September 2013);
43. *Higgs to diphoton and vanilla new Physics*, Planck 2013 - Bonn (Germany) (maio 2013);
44. *SUSY after LHC8: a brief overview*, LHCP 2013, Barcelona (May 2013);
45. *Can vanilla new physics illuminate the Higgs boson?*, GDR-Terascale, Paris (November 2012);
46. *Vanilla new Physics facing the Higgs boson*, University Roma "La Sapienza" (October 2012);
47. *Vanilla new Physics facing the Higgs boson*, SISSA - Trieste (October 2012);
48. *New physics in $h \rightarrow \gamma\gamma$?*, Montpellier University, France (September 2012);
49. *Flavor symmetries*, GDR-neutrinos, Paris (May 2012);
50. *Fitting neutrino physics with a $U(1)_R$ lepton number*, Rencontres de Physique des Particules, Montpellier (May 2012);
51. *The problem of initial conditions in flavoured leptogenesis*, Planck 2011 - Lisbon (June 2011);
52. *The problem of initial conditions in flavoured leptogenesis*, Scuola Normale Superiore, Pisa (April 2011);
53. *A non-standard supersymmetric spectrum*, University of Padua, Italy (June 2010).

3.4 Postdocs

Dopo essermi unito al gruppo di ricerca dell'Università di Sao Paulo (Brasile), ho supervisionato assieme agli altri membri del gruppo i seguenti postdoc: Chee Sheng Fong, Boris Panes, Giovanni Grilli di Cortona, Hugues Beauchesne, Zahra Tabrizi, Peter Reimitz e Thathagata Gosh.

3.5 Organizzazione di eventi internazionali

- **2026:**
 - *Program on "Horizons Beyond the Standard Model: from Colliders to Dark Matter and Axions"* (June 2026, organizer with G. Burdman, C. Csáki and C. Grojean), [link](#);
- **2022:**
 - *Program on "New Direction in Particle Physics"* (September 2022, organizer with G. Burdman, C. Csáki and C. Grojean), [link](#);
- **2020:**
 - *Second Joint ICTP-ICTP SAIFR School of Particle Physics* (June 2020, organizer with J. Elias Miró, Rogério Rosenfeld and G. Villadoro), [link](#);
 - *Third South American Dark Matter Workshop* (November 2020, organizer with I. Albuquerque and F. Iocco), [link](#);
- **2019:**
 - *XX Swieca School of Particles and Fields* (February 2019, organizer with H. Nastase and T. Pereira), [link](#);
- **2018:**
 - *Second South American Dark Matter Workshop* (November 2018, organizer with F. Iocco and M. Vecchi), [link](#);
 - *Dark Matter Flash School* (November 2018, organizer with F. Iocco and lecturer), [link](#);
 - *First Joint ICTP - ICTP SAIFR School of Particle Physics* (June 2018, organizer with E. Pontón, A. Romanino and G. Villadoro), [link](#);
- **2017:**
 - *South American Dark Matter Workshop* (May 2017, organizer with F. Iocco and M. Vecchi), [link](#).

3.6 Attività di reviewer

Dal 2011 sono un reviewer per le seguenti riviste: Journal of High Energy Physics, European Physical Journal C, Advances in High Energy Physics, Nuclear Physics B.

4 Studenti

4.1 Brasile

Elenco gli studenti che ho supervisionato all'Università di São Paulo dal 2015, assieme alle borse che sono state ottenute per finanziare la loro ricerca. FAPESP è una agenzia di finanziamento alla ricerca dello stato di Sao Paulo (Brasile), mentre CNPq è una agenzia dello stato federale brasiliano.

• **Iniciação científica** (equivalente alla tesi di laurea triennale)

1. Artur de Santiago Camoleze, *Uma introdução à teoria quântica de campos* (Introduction to Quantum Field Theory), 2022;
2. Pedro Henrique Trajano Lemos Tredezini, *Mecânica Quântica e Relatividade: uma abordagem avançada* (Quantum Mechanics and Relativity: an advanced approach), 2019 (FAPESP 2019/10902-8);
3. Milena Bastos Albino, *Teorias de gauge quânticas* (Quantum gauge theories), 2019 (FAPESP 2019/02316-1);
4. Matheus Martines de Azevedo da Silva, *Uma introdução à teoria quântica de campos* (Introduction to Quantum Field Theory), 2019 (FAPESP 2018/22717-8);
5. Fernanda Lima Matos, *Introdução à Física da Matéria Escura* (Introduction to the Physics of Dark Matter), 2018 (FAPESP 2018/09895-4);
6. Gabriel Massoni Salla, *Grupos de simetria e Teoria Quântica de Campos* (Symmetry groups and Quantum Field Theory), 2017 (FAPESP 2017/09020-5);
7. Fernanda Hüller Nascimento, *Introdução à Teoria de Campos* (Introduction to Quantum Field Theory), 2017 (FAPESP 2016/18947-2);
8. Naim Comar, *Introdução à Teoria de Campos* (Introduction to Quantum Field Theory), 2016.

• **Mestrado** (equivalente alla laurea magistrale)

1. Beatriz Sayuri Duval Hashimoto, *Phenomenology of the dipolar coupling between Dark Matter and Dark Photon*, 2022-2024;
2. Tommaso Sassi, *Vector Dark Matter in Effective Field Theories* (co-supervisor – University of Modena and Reggio Emilia, Italy) 2021;
3. Pedro Henrique Trajano Lemos Tredezini, *Phenomenology of Vector Dark Matter*, 2021-2023 (CPNq);
4. Fernanda Lima Matos, *Study of the abundance of light dark matter in the early universe*, 2021-2023 (FAPESP, 2020/14811-4);
5. Lucas Magno Dantas Ramos, *Coherent Elastic Neutrino-Nucleus Scattering: bounds on light Z' models*, 2020-2022 (CNPq);
6. Gabriel Massoni Salla, *Física Além Do Modelo Padrão: desafios teóricos e fenomenológicos - Modelos de Higgs composto e UV completions*, 2019–2021 (FAPESP, 2018/23679-2);
7. Naim Comar, *Relaxion Physics: a new solution to the Hierarchy problem*, 2017–2019 (CNPq);
8. Fernanda Hüller Nascimento, *Precision measurements: past, present and future*, 2018–2020 (FAPESP 2017/27129-4);
9. Juan Pablo Hoyos Daza, *Models of Composite Higgs*, 2015–2017 (CNPq);
10. Victor M. M. Albornoz, *Supersymmetry with an extended gauge symmetry*, 2015–2017 (CNPq).

• **Dottorato**

1. Lucas Magno Dantas Ramos, *Simplified Dark Matter models at the LHC*, 2022–2026 (CNPq), cosupervision with André Lessa (UFABC, Brazil);
2. Gabriel Massoni Salla, *Aspects of the neutrino-Dark Matter connection*, 2020–2024 (FAPESP 2020/14713-2);
3. Cristian J. C. Barros, *Supersymmetric models with Dirac Gauginos*, 2015–2019 (CNPq);
4. Martín Arteaga Tupia, *Relaxion Physics and its phenomenological consequences*, 2017–2021 (CNPq).

4.2 Italy

- Laurea triennale

1. Asia Zanolì, *Introduzione alla cinematica e termodinamica dell'universo primordiale*, 2026;
2. Annika Zaccaria, *Introduzione alla teoria quantistica dei campi: campo scalare quantistico per bosoni di spin zero*, 2026;
3. Alessia Confetti, *Introduzione all'inflazione cosmologica*, 2025;
4. Luca Gardini, *Introduzione alle onde gravitazionali*, 2025;
5. Anna Micheli, *Introduzione alla cosmologia e studio della termodinamica dell'universo*, 2025;
6. Caterina Riccò, *Introduzione alla cosmologia*, 2025;
7. Giovanni Sghedoni, *Introduzione alla Fisica delle Particelle e Teoria Quantistica dei Campi per particelle di spin zero*, 2024;
8. Francesco Lodi, *Introduzione al modello dell'Hot Big Bang*, 2024;
9. Michele Silvestri, *Introduzione alla fisica della materia oscura*, 2023;
10. Nicolò Becchi, *Introduzione all'inflazione cosmologica*, 2023;
11. Sara Covella, *Introduzione alla cosmologia*, 2023;

- Laurea magistrale

1. Tommaso Sassi, *Vector dark matter effective field theory*, 2022.
2. Alessandro Piras, *CMB bounds on a light vector Dark Matter model*, 2024.
3. Giovanni Sghedoni, *Evading the CMB bound on dark matter: model building*, 2026.
4. Michele Silvestri, *Big Bang Nucleosynthesis limits on sterile neutrinos in the presence of dipoles*, 2026.

- PhD

1. Giuliana Cagnina, 2025–2028

5 Informazioni aggiuntive

- Inspire database (con l'elenco aggiornato delle pubblicazioni): http://inspirehep.net/search?ln=en&p=f+a+bertuzzo&of=hb&action_search=Search&sf=earliestdate&so=d;
- website: fmarm.if.usp.br/~enrico, <http://personale.unimore.it/Rubrica/dettaglio/ebertuzzo>;