Micol Benetti

Last updated: January 2026

Curriculum Vitae

CV Summary

Position	Associate Professor SSD PHYS-05/A, GSD 02/PHYS-05, Scuola Superiore Meridionale
Main Research Topics	Theoretical and Observational Cosmology, General Relativity, Cosmological Models and Inflationary Theory, Extended Theories of Gravity, Cosmography, Cosmological data, Data analysis and parameters constraint, Bayesian inference, Boltzmann solver codes (CAMB and CLASS), Data analysis codes (CosmoMC, Monte Python, Cobaya and MultiNest), Informatics and programming languages (Fortran, Python, C++)
h-index	SCOPUS: 29; Web of Science: 30; Google Scholar: 33 (ORCID:0000-0002-3670-7214)
Publications	61 scientific research papers in peer-reviewed journals
Teaching and Student advising	Over 11 years of teaching, 3 Graduate courses, 2 Master's courses, and 10 PhD courses have been offered. Theses co-advisor of 5 bachelor, 5 master and 4 Ph.D. students; 1 supervisor abroad activity
Qualifications	ASN (*Abilitazione Scientifica Nazionale*) for disciplinary fields of 02/A2 and 02/C1
Awards	SIGRAV prize for young researchers in "Astrophysics, Cosmology and Experimental Gravity"
Editor	Associate Editor for EPL - *Europhysics Letters*
Webpage	Profile Page on the SSM website

Qualifications and Awards

2022- 2031 **National Scientific Habilitation (Abilitazione Scientifica Nazionale, ASN) as Associate in the Italian higher education system**, *for the disciplinary field of 02/A2 - Theoretical physics of fundamental interactions (Ministerial Decree n. 553/2021 and 589/2021)*, MIUR Results.

2022- 2032 **National Scientific Habilitation (Abilitazione Scientifica Nazionale, ASN) as Associate in the Italian higher education system**, *for the disciplinary field of 02/C1 - Astronomy, Astrophysics, Physics of the earth and Planets (Ministerial Decree n. 553/2021 and 589/2021)*, MIUR Results.

2021 **SIGRAV prize for young researchers**, *section "Astrophysics, Cosmology and Experimental Gravity"*, awarded by the Italian Society of General Relativity and Gravitational Physics, SIGRAV Prize.

Current position

12/2024–now **Associate Professor**, *Scuola Superiore Meridionale - School of Advanced Studies of Naples*, SSD: PHYS 05/A - Astronomia ed Astrofisica, SSM academic staff.

Previous research fellowships

11/2021–10/2024 **Research Assistant**, *Scuola Superiore Meridionale - School of Advanced Studies of Naples.*
3-year Research Fellowship.

05/2018–09/2021 **Postdoctoral researcher**, *University of Naples "Federico II", Department of Physics.*
Department Research fellowship.

06/2015–04/2018 **Postdoctoral researcher**, *National Observatory of Rio de Janeiro, COAA (Coordenação de Astronomia e Astrofísica) group.*
3-year Postdoctoral FAPERJ fellowship (Programa Pós-doutorado Nota 10 - 2015).

08/2014–05/2015 **Postdoctoral researcher**, *National Observatory of Rio de Janeiro, COAA (Coordenação de Astronomia e Astrofísica) group.*
Postdoctoral PCI-DA fellowship (Programa de Capacitação Institutional do MCTI, CNPq program).

Education

03/2014 **Ph.D. degree in Relativistic Astrophysics IRAP**,
University of Rome "La Sapienza" - Department of Physics
Thesis: "Constraints on the primordial spectrum and inflationary potential from cosmological observations".
Advisor: Prof. A. Melchiorri, Co-Advisor: Dr. M. Lattanzi
Thesis available in: hdl.handle.net11573/926538 .

09/2010 **Master's degree in Astronomy and Astrophysics**,
University of Rome "La Sapienza" - Department of Physics
Thesis: "Cosmological constraints on primordial oscillations in the inflationary perturbations spectrum", final mark 110/110.

10/2006 **Bachelor's Degree in Physics and Astrophysics**,
University of Rome "La Sapienza" - Department of Physics
Thesis: "Inflationary Theories".

Publications

Published (61 + 7 proceedings) and submitted (1)

- **62. Constraining a de Broglie-Bohm quantum bounce cosmology with Planck data** M. Benetti, R. O. Ramos, R. Silva, G. S. Vicente
  Accepted to PRD, *Physical Review D*. ArXiv:2510.18022
- **61. Extended Massive Electromagnetism**
  F. Bajardi, M. Benetti, S. Capozziello, A. Dib
  Submitted to *Nuclear Physics B*.
- **60. Can cosmic rotation resolve the Hubble tension? Constraints from CMB and large-scale structure** M. Benetti, D. A. Cook, S. Carneiro
  Accepted to JCAP, *Journal of Cosmology and Astroparticle Physics*. ArXiv:2508.00759

- ▷ **59. The CosmoVerse White Paper: Addressing observational tensions in cosmology with systematics and fundamental physics**
  E. Di Valentino, J. Levi Said, A. Riess, *et al.*
  PDU, *Physics of the Dark Universe*, 49 101965 (2025). ArXiv:2504.01669
- ▷ **58. Quasar cosmology II: joint analyses with Cosmic Microwave Background**
  M. Benetti, G. Bargiacchi, G. Risaliti, S. Capozziello, E. Lusso, M. Signorini,
  PDU, *Physics of the Dark Universe*, 49 101983 (2025). ArXiv:2506.21477
- ▷ **57. Dark sector interactions in light of weak lensing data**
  M. Benetti, P. T. Z. Seidel, C. Pigozzo, I. P. R. Baranov, S. Carneiro, J. C. Fabris,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, 06 046 (2025). ArXiv:2410.07057
- ▷ **56. Constraints on polynomial inflation under power-law perturbations**
  M.E. S. Antunes, M. Benetti, E. Bittencourt, F. A. Franco,
  PDU, *Physics of the Dark Universe*, 48 101867 (2025). ArXiv:2410.06222
- ▷ **55. A visual tool for assessing tension-resolving models in the H_0-σ_8 plane**
  I. O. C. Pedreira, M. Benetti, E. G. M. Ferreira, L. L. Graef, L. Herold,
  PRD, *Physical Review D*, 109 103525 (2024). ArXiv:2311.04977
- ▷ **54. Beyond ΛCDM with $f(z)$CDM: criticalities and solutions of Padé Cosmography** A. T. Petreca, M. Benetti, S. Capozziello,
  PDU, *Physics of the Dark Universe*, 44 101453 (2024). ArXiv:2309.15711
- ▷ **53. Testing the growth rate in homogeneous and inhomogeneous interacting vacuum models** H. Borges, C. Pigozzo, P. Hepp, L. O. Baraúna, M. Benetti,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, 06 009 (2023). ArXiv:2303.04793
- ▷ **52. Higgs Inflation: constraining the top quark mass and breaking the H_0-σ_8 correlation** J. G. Rodrigues, M. Benetti, R. de Souza, J. Alcaniz,
  PLB, *Physics Letters B*, 852 138607 (2024). ArXiv:2301.11788
- ▷ **51. Exploring departures from Schwarzschild black hole geometry in $f(R)$ gravity**
  V. De Falco, F. Bajardi, R. D'Agostino, M. Benetti, S. Capozziello,
  Eur. Phys. J. C, *The European Physical Journal C*, 83 456 (2023). ArXiv:2305.04695
- ▷ **50. Cosmological constraints on unimodular gravity models with diffusion**
  S. J. Landau, M. Benetti, A. Perez, D. Sudarsky,
  PRD, *Physical Review D*, 108 043524 (2023). ArXiv:2211.07424
- ▷ **49. Early and late time cosmology: the $f(R)$ gravity perspective**
  F. Bajardi, R. D'Agostino, M. Benetti, V. De Falco, S. Capozziello,
  Eur. Phys. J. Plus, *The European Physical Journal Plus*, 137, no.11, 1239 (2022). ArXiv:2211.06268
- ▷ **48. Warm β-exponential inflation and the Swampland Conjectures**
  F. dos Santos, R. Silva, S. Santos da Costa, M. Benetti, J. Alcaniz,
  Eur. Phys. J. C, *The European Physical Journal C*, 83, 178, 1239 (2023). ArXiv:2209.06153
- ▷ **47. An empirical investigation into cosmological tensions**
  R. de Sa, M. Benetti, L. L. Graef,
  Eur. Phys. J. Plus, *The European Physical Journal Plus*, 137, no.10, 1129 (2022). ArXiv:2209.11476
- ▷ **46. Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies** E. Abdalla *et al.*, JHEAp, *The Journal of High Energy Astrophysics*, 34 49–211 (2022). ArXiv:2203.06142

- ▷ **45. Constraining non-minimally coupled β-exponential inflation with CMB data**
  F. dos Santos, S. Santos da Costa, R. Silva, M. Benetti, J. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, 06 001 (2022). ArXiv:2110.14758
- ▷ **44. Quasar cosmology: dark energy evolution and spatial curvature**
  G. Bargiacchi, M. Benetti, S. Capozziello, E. Lusso, G. Risaliti, M. Signorini,
  MNRAS, *Monthly Notices of the Royal Astronomical Society*, Vol. 515, Issue 2, Pages 1795–1806 (2022). ArXiv:2111.02420
- ▷ **43. Primordial gravitational waves from NANOGrav**
  M. Benetti, L. Graef, S.Vagnozzi, Physical Review D. 105 04 (2022). ArXiv:2111.04758
- ▷ **42. Discrepancy between cosmological and electroweak observables in Higgs Inflation** J. G. Rodrigues, M. Benetti, J. Alcaniz,
  JHEP, *Journal High Energy Physics*, 11 091 (2021). ArXiv:2105.07009
- ▷ **41. The Heisenberg limit at cosmological scales**
  A. D. A. M. Spallicci, M. Benetti, S. Capozziello,
  FOP, *Foundations of Physics*, 52 23 (2022). arXiv:2112.07359
- ▷ **40. Testing the consistency between cosmological data: the impact of spatial curvature and the dark energy EoS**
  J. E. Gonzalez, M. Benetti, R. Von Marttens. J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, 11 060 (2021). arXiv:2104.13455
- ▷ **39. Dark sector interactions and the curvature of the Universe in light of Planck's 2018 data**
  M. Benetti, H. Borges, C. Pigozzo, S. Carneiro, J. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, 08 014 (2021). ArXiv:2102.10123
- ▷ **38. J-PAS: forecasts on interacting vacuum energy models**
  V.Salzano, C.Pigozzo, M. Benetti *et al.*,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, 09 033 (2021). ArXiv:2102.06417
- ▷ **37. Cosmography by orthogonalized logarithmic polynomials**
  G. Bargiacchi, G. Risaliti, M. Benetti *et al.*,
  Astronomy & Astrophysics 649, A65 (2021). ArXiv:2101.08278
- ▷ **36. Einstein, Planck and Vera Rubin: relevant encounters between the Cosmological and the Quantum Worlds**
  P. Salucci, G. Esposito, G. Lambiase, E. Battista, M. Benetti *et al.*,
  Frontiers in Physics, section Cosmology, 16 February 2021. ArXiv:2011.09278
- ▷ **35. Cosmology Intertwined I: Perspectives for the Next Decade**
  34. Cosmology Intertwined II: The Hubble Constant Tension
  33. Cosmology Intertwined III: fσ8 and S_8
  32. Cosmology Intertwined IV: The Age of the Universe and its Curvature
  E. Di Valentino *et al.*
  Astroparticle Physics Vol 131, 102606, 102605, 102604, 102607, ArXiv:2008.11283, ArXiv:2008.11284, ArXiv:2008.11285, ArXiv:2008.11286
- ▷ **31. Robustness of the Starobinsky in Inflationary model**
  S. Costa, M. Benetti, R. M. P. Neves, R. Silva and J. S. Alcaniz,
  EPJP, *European Physical Journal Plus* 136, no. 1, 84 (2021). ArXiv:2007.09211
- ▷ **30. The miniJPAS survey: a preview of the Universe in 56 colours**
  S. Bonoli *et al.*, Astronomy & Astrophysics vol. 563 A31 (2021). ArXiv:2007.01910

- ▷ **29. Quasars as standard candles III. Validation of a new sample for cosmological studies**
  E. Lusso, G. Risaliti, E. Nardini, G. Bargiacchi, M. Benetti *et al.*,
  Astronomy & Astrophysics 642, A150 (2020). ArXiv:2008.08586
- ▷ **28. Updating constraints on $f(T)$ teleparallel gravity and the consistency with Big Bang Nucleosynthesis**
  M. Benetti, S. Capozziello, G. Lambiase,
  MNRAS, *Monthly Notices of the Royal Astronomical Society* Vol. 500, Issue 2, Pages 1795–1805 (2021). ArXiv:2006.15335
- ▷ **27. Cosmological constraints on Hořava gravity revised in light of GW170817 and GRB170817A and the degeneracy with massive neutrinos**
  N. Frusciante, M. Benetti,
  Phys. Rev. D 103, 104060 (2021) ArXiv:2005.14705
- ▷ **26. Probing the Seesaw Mechanism with Cosmological data**
  J. G. Rodrigues, M. Benetti, M. Campista, J. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics* **07** 007 (2020). ArXiv:2002.05154
- ▷ **25. Addressing the cosmological Ho tension by the Heisenberg uncertainty**
  S. Capozziello, M. Benetti, A. D. A. M. Spallicci,
  FOP, *Foundations of Physics* **07** 893-899 (2020). ArXiv:2007.00462
- ▷ **24. Probing the weak gravity conjecture in the cosmic microwave background** M. Winkler , M. Gerbino, M. Benetti,
  Physical Review D. **101**, 083525 (2020). ArXiv:1911.11148
- ▷ **23. Connecting early and late epochs by f(z)CDM cosmography**
  M. Benetti, S. Capozziello,
  JCAP, *Journal of Cosmology and Astroparticle Physics* **12** 008 (2019). ArXiv:1910.09975
- ▷ **22. Looking for interactions in the cosmological dark sector**, M. Benetti, W. Miranda, H. A. Borges, S. Carneiro, C. Pigozzo, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics* **12** 023 (2019). ArXiv:1908.07213
- ▷ **21. Observational Constraints on Warm Inflation in Loop Quantum Cosmology**, M. Benetti, L. Graef and R. Ramos,
  JCAP, *Journal of Cosmology and Astroparticle Physics* **10** 066 (2019). ArXiv:1907.03633
- ▷ **20. Swampland conjecture in $f(R)$ gravity by the Noether Symmetry Approach**
  M. Benetti, S. Capozziello and L. L. Graef,
  Physical Review D. **100**, 084013 (2019). ArXiv:1905.05654
- ▷ **19. Primordial gravitational waves and the H0-tension problem**
  L. L. Graef, M. Benetti, J. S. Alcaniz,
  Physical Review D. **99**, 043519 (2019). ArXiv:1809.04501
- ▷ **18. Constraining quantum collapse inflationary models with current data: The semiclassical approach**
  M. P. Piccirilli, G. Leon, S. J. Landau, , M. Benetti, D. Sudarsky,
  Int. J. Mod. Phys. D Vol. 28, No. 2 (2019) 195004. ArXiv:1709.06237
- ▷ **17. The H_0 and σ_8 tensions and the scale invariant spectrum**
  M. Benetti, L.L. Graef, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics* **07** 066 (2018). ArXiv:1712.00677
- ▷ **16. Observational constraints on Gauss-Bonnet cosmology**
  M. Benetti, S. Costa, S. Capozziello, J. S. Alcaniz, M. de Laurentis,
  Int. J. Mod. Phys. D 1850084 (2018). ArXiv:1803.00895

- **15. Dynamical analysis on f(R,G) cosmology**
  S. Costa, F. Roig, J. S. Alcaniz, S. Capozziello, M. de Laurentis, M. Benetti,
  Class. Quantum Grav. **35** 075013 (2018). ArXiv:1802.02572
- **14. The transverse baryonic acoustic scale from the SDSS DR11 galaxies**, G. C. Carvalho, A. Bernui, M. Benetti, J. C. Carvalho, E. de Carvalho, J. S. Alcaniz,
  Astropart. Phys. 119, 102432 (2020) ArXiv:1709.00271
- **13. CMB constraints on β-exponential inflationary models**
  M. A. dos Santos, M. Benetti, J. S. Alcaniz, F. A. Brito, R. Silva,
  JCAP, *Journal of Cosmology and Astroparticle Physics* **03** 023 (2018). ArXiv:1710.09808
- **12. A Bayesian analysis of inflationary primordial spectrum models using Planck data**, S. Costa, M. Benetti, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, **03** 004 (2018). ArXiv:1710.01613
- **11. Testing non-minimally coupled inflation with CMB data: a Bayesian analysis** , M. Campista, M. Benetti, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, **09** 010 (2017). ArXiv:1705.08877
- **10. Constraining the Break of Spatial Diffeomorphism Invariance with Planck Data** , L. L. Graef, M. Benetti, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, **07** 013 (2017). ArXiv:1705.01961
- **9. Do joint CMB and HST data support a scale invariant spectrum?**
  M. Benetti, L. L. Graef, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, **04** 003 (2017). ArXiv:1702.06509
- **8. Warm inflation dissipative effects: Predictions and constrains from the Planck data** , M. Benetti, R. Ramos,
  Physical Review D. 26 **95**, 023517 (2017). ArXiv:1610.08758
- **7. Constraining quantum collapse inflationary models with CMB data**
  M. Benetti, S. J. Landau, J. S. Alcaniz,
  JCAP, *Journal of Cosmology and Astroparticle Physics*, **12** 035 (2016). ArXiv:1610.03091
- **6. Bayesian analysis of inflationary features in Planck and SDSS data**
  M. Benetti, J. S. Alcaniz, *Physical Review D.* **94**, 023526 (2016). ArXiv:1604.08156
- **5. Baryon Acoustic Oscillations from the SDSS DR10 galaxies angular correlation function**
  G. C. Carvalho, A. Bernui, M. Benetti, J. C. Carvalho, J. S. Alcaniz,
  Physical Review D. **93**, 023530 (2016). ArXiv:1507.08972
- **4. Updating constraints by Planck data on inflationary features model**
  M. Benetti, *Physical Review D.* **88**, 087302 (2013). ArXiv:1308.6406
- **3. Cosmological data and indications for new physics**
  M. Benetti, M. Gerbino, W. H. Kinney, E. W. Kolb, M. Lattanzi, A. Melchiorri, L. Pagano, A. Riotto,
  JCAP - *Journal of Cosmology and Astroparticle Physics*, **10** 030 (2013). ArXiv:1303.4317
- **2. Featuring the primordial power spectrum: new constraints on interrupted slow-roll from CMB and LRG data**
  M. Benetti, S. Pandolfi, M. Lattanzi, M. Martinelli, A. Melchiorri,
  Physical Review D. **87**, 023519 (2013). ArXiv:1210.3562
- **1. Features in the primordial spectrum: new constraints from WMAP7+ACT data and prospects for Plank**
  M. Benetti, M. Lattanzi, E. Calabrese, A. Melchiorri,
  Physical Review D. **84**, 063509 (2011). ArXiv:1107.4992

Proceeding

- **Primordial non-gaussianities of inflationary step-like models** Published in: J.Phys.Conf.Ser. 2372 (2022) 1, 012002 Camila P. Novaes (Sao Jose, INPE and Sao Paulo, Inst. Tech. Aeronautics), Micol Benetti (Naples U. and INFN, Naples), Armando Bernui (Rio de Janeiro Observ.) DOI: 10.1088/1742-6596/2372/1/012002
- **As Astrocientistas - I Encontro Brasileiro de Meninas e Mulheres da Astrofísica, Gravitação e Cosmologia** Published by Blucher Physics Proceedings, Sept 2022 vol. 8 num. 1 (ISSN : 2358-2359) DOI: 10.5151/astrocientistas2021-10
- **Cosmic microwave background and large scale structure constraints on primordial inflation**
  M. Benetti J. S. Alcaniz, Parallel Session of the "Fourteenth Marcel Grossmann Meeting on General Relativity" held in Rome, 2015, Italy. Published by World Scientific, PART C. pp. 2109-2114 (2017) DOI: 10.1142/97898132266090233
- **Recent results and prospectives on cosmology and fundamental physics from microwave survey**
  Burigana, Battistelli, Benetti *et al.*, Parallel Session of the "Fourteenth Marcel Grossman Meeting on General Relativity" held in Rome, 2015, Italy. Published by Int. J. Mod. Phys. D **25** no. 06, 1630016 (2016) ArXiv:1604.03819
  DOI: 10.1142/S0218271816300160, 10.1142/97898132266090031
- **Features in the Early Universe**
  M. Benetti, for the "2nd Cesar Lattes Meeting" held in Rio de Janeiro, 2015, Brazil. Published by AIP Conference Proceedings **1693**, 050004 (2015).
  DOI: 10.1063/1.4937197
- **Features in the primordial spectrum: new constraints by Planck**
  M. Benetti, for the "New Horizons for Observational Cosmology" held in Varenna, 2013, Italy. Published by IOS Press, **186**, 416 (2014).
  DOI: 10.3254/978-1-61499-476-3-243
- **New constraints on features in the primordial spectrum**
  M. Benetti, for "The third Galileo- Xu Guangqi meeting" held in Beijing, 2011, China. Published by Int. J. Mod. Phys. Conf. Ser., **23**, 345 (2013).
  DOI: 10.1142/S2010-194513011598

Chapter of book

- **Gravity and the Quantum**, *Pedagogical Essays on Cosmology, Astrophysics, and Quantum Gravity*
  Springer, series *Fundamental Theories of Physics*, **187** (2017), Pages 11-19, edit to Jasjeet Singh Bagla, Sunu Engineer
  Chapter title: *Measuring baryon acoustic oscillations with angular two-point correlation function*, J. S. Alcaniz, G. C. Carvalho, A. Bernui, J. C. Carvalho, M. Benetti. DOI: 10.1007/978-3-319-51700-1

Teaching, Students Advising, Examination board

Teaching

2026 **Professor**, *12-hour Pillar course on "Observational Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2026 **Professor**, *12-hour Pillar course on "Introduction to Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2026 **Professor**, *48-hour Graduate course on "Physics I"*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2026 **Professor**, *16-hour Graduate course on "Mathematics and Physics Seminars for Chemical and Biomedical Sciences"*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2025 **Member of PhD Teaching Board**, *Scuola Superiore Meridionale - SSM, Naples, Italy*.

2025 **Professor**, *16-hour Graduate course on "Mathematics and Physics Seminars for Chemical and Biomedical Sciences"*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2025 **Professor**, *12-hour Monographic course on "Observational Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2024 **Professor**, *24-hour Pillar course on "Introduction to Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2023 **Lecturer**, *12-hour Pillar course on "Introduction to Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2022 **Lecturer**, *12-hour Pillar course on "Introduction to Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2022 **Lecturer**, *12-hour Monographic course on "Observational Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2021 **Lecturer**, *12-hour Monographic course on "Observational Cosmology" for Ph.D students*, Scuola Superiore Meridionale - SSM, Naples, Italy.

2017 **Guest Lecturer**, *10-hour monographic course on "Tools for data analysis in cosmology" for Ph.D students and Post-doc*, Federal University of Rio Grande do Norte - UFRN, Natal, RN, Brazil.

2017 **Guest Lecturer**, *8-hour monographic course on "Data analysis in cosmology" for MSc students*, University of Naples "Federico II", department of Physics, Naples, Italy.

2017 **Lecturer**, *20-hour monographic course on "Code for Anisotropies in the Microwave Background I" for MSc students*, Observatório Nacional, Rio de Janeiro, RJ, Brazil.

2017 **Member of Teaching Board**, *Observatório Nacional, Rio de Janeiro, RJ, Brazil*.

2015 **Lecturer**, *10-hour monographic course on on "CAMB: a code for cosmological theoretical predictions" for MSc and Ph.D. students*, Observatório Nacional, Rio de Janeiro, RJ, Brazil.

PhD Students Advising

2025-now **PhD thesis Co-Advisor**, *student: Ricardo Alexandre Fernandes Filho - advisor: Rodrigo Von Marttens*, Scuola Superiore Meridionale, Naples, Italy.

2025-now **PhD thesis Co-Advisor**, *student: Marco Antonio Cardoso Alvarez - advisor: Leila Lobato Graef*, Universidade Federal Fluminense (UFF), department of Physics, Niteroi, Brasil.

2023-now **PhD thesis Co-Advisor**, *student: Mariam Tarek Mohamed Abdelaziz - advisor: Sabino Matarrese*, Scuola Superiore Meridionale, Naples, Italy.

2023-2025 **PhD thesis Co-Advisor**, *student: Paola Terezinha Seidel - advisor: Júlio Fabris*, Federal University of Espirito Santo, department of Physics, Vitoria, Brasil.

2017-2019 **PhD thesis Co-Advisor**, *student: Simony Costa - advisor: Jailson Alcaniz*, Observatório Nacional, Rio de Janeiro, RJ, Brazil.

BS and MS Advising

02/2024 **Master thesis Co-Advisor**, *student: Maria Eduarda Antunes dos Santos - advisor: Eduardo Henrique Silva Bittencourt*, Federal University of Itajubá, department of Physics, Itajubá, Brasil.

02-07/2023 **Supervisor Abroad**, *6-month*, student: Alexandra Turmina Petreca - advisor: Edivaldo Moura Santos, University of São Paulo, department of Physics, São Paulo, Brasil.

05/2022 **Master thesis Co-Advisor**, *student: Davoud Ahmadi - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

04/2022 **Master thesis Co-Advisor**, *student: Ramon de sá Pereira - advisor: Leila Lobato Graef*, Universidade Federal Fluminense (UFF), department of Physics, Niteroi, Brasil.

03/2021 **Master thesis Co-Advisor**, *student: Giuseppe di Somma - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

03/2021 **Master thesis Co-Advisor**, *student: Dario Saviano - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

07/2020 **Graduate thesis Co-Advisor**, *student: Anna Chiara Alfano - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

03/2020 **Graduate thesis Co-Advisor**, *student: Pietro Farina - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

02/2019 **Graduate thesis Co-Advisor**, *student: Filippo Bouché - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

11/2018 **Graduate thesis Co-Advisor**, *student: Davoud Ahmadi - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

07/2018 **Graduate thesis Co-Advisor**, *student: Alberto Tortora - advisor: Salvatore Capozziello*, University of Naples "Federico II", department of Physics, Naples, Italy.

Organization of PhD School, Conference and Workshop

2025 **Local Organizing Committee**, *CosmoVerse@Naples, CosmoVerse COST-Action workshop 2025*, held in May 21-23 2025, Naples, Italy, School website.

2025 **Local Organizing Committee**, *Italian Society for General Relativity and Gravitation (SIGRAV) PhD school 2025*, held in Feb 17-21 2025, Vietri sul Mare, Italy, School website.

2024 **Local Organizing Committee**, *Italian Society for General Relativity and Gravitation (SIGRAV) PhD school 2024*, held in Feb 19-23 2024, Vietri sul Mare, Italy, School website.

2023 **Local Organizing Committee**, *Italian Society for General Relativity and Gravitation (SIGRAV) PhD school 2023*, held in Feb 13-17 2023, Vietri sul Mare, Italy, School website.

2022 **Local Organizing Committee**, *Italian Society for General Relativity and Gravitation (SIGRAV) PhD school 2022*, held in Feb 14-18 2022, Webinar, School website.

2021 **Organizing Committee**, *QGSky workshop*, INFN Iniziativa Specifica annual meeting, held in Dec 1-3 2021, Webinar and in presence, School website.

2021 **Organizing Committee**, *Gravitational Waves from Theory to Experiments: the Birth of a New Astronomy*, Scuola Superiore Meridionale (SSM), held in Jun 14-28 2021, Webinar, School website.

2021 **Local Organizing Committee**, *Italian Society for General Relativity and Gravitation (SIGRAV) PhD school 2021*, held in Feb 1-5 2021, Webinar, School website.

2020 **Local Organizing Committee**, *Italian Society for General Relativity and Gravitation (SIGRAV) PhD school 2020*, held in Feb 3-7 2020, Vietri sul Mare, Italy, School website.

2017 **Local Organizing Committee**, *XXII Special Courses (CCE)*, Ph.D school held in Aug 21-24 2017, Observatório National of Rio de Janeiro, RJ, Brazil.
School website

2016 **Local Organizing Committee**, *IV Rio de Janeiro Workshop on Cosmology and Gravitation*, held in Apr 18-20 2016, Observatório National of Rio de Janeiro, RJ, Brazil.
Meeting website

Academic Service, Organizational & Management Responsibilities

2025 **Committee Member of the selection committee for teaching assignments for the academic year 2025/2026**, *Ordinary Courses for Undergraduate Students*, Scuola Superiore Meridionale, Decree No. 150 (Oct 7, 2025).

2025 **Committee Member (Secretary) of the selection committee for the admission of 7 PhD candidates of 41st cycle**, *Cosmology, Space Science & Space Technology (SPACE)*, Scuola Superiore Meridionale, Decree No. 122 (Sept 1, 2025).

2025 **Committee Member (Secretary) of the selection committee for the public call for 1 research contract**, *Cosmology, Space Science & Space Technology (SPACE), SSD PHYS-05/A*, Scuola Superiore Meridionale, Decree No. 101 (July 11, 2025).

2025 **Member of the committee for the evaluation of research fellows' activities at the Scuola Superiore Meridionale**, *Decree No. 94 (July 3, 2025)*.

2025 **Workers' Safety Representative for teaching and research staff at the Scuola Superiore Meridionale**, *Decree No. 84 (June 23, 2025)*.

2025 **Member of the PhD faculty board**, *COSMOLOGY, SPACE SCIENCE & SPACE TECHNOLOGY (SPACE)* , SPACE webpage.

2025 **Member of the Permanent Academic Committee for the Scientific-Technological Area for Ordinary Students**, *Scuola Superiore Meridionale (SSM)*, Decree No. 48 (April 4, 2025).

2025 **Member of the internal tutor selection committee**, *Scuola Superiore Meridionale (SSM)*, Decree No. 138 (November 17, 2024).

2020, 2021, 2022, 2023, 2024, 2025 **Organisational and service management activities for the SSM**, *Scuola Superiore Meridionale (SSM)*, doctoral program. Organization of SPACE area doctoral course schedules, coordination of lecturers, certificates, and guest invitation management.

2020, 2021, 2022 **Colloquia Coordinator**, *Scuola Superiore Meridionale (SSM) weekly meeting*, invitation, reception and reimbursement process for 30+ internationally renowned lecturers delivering 50-minute seminars on several topics relevant to all scientific disciplines within the SSM STEM areas., Website.

2022-2025 **SPACE-day organizer**, *Scuola Superiore Meridionale (SSM) annual meeting*, Workshop of SPACE-PhD students, on their research activities and achievements over the past year Edition-2 Edition-3.

2021 **Orientation Days Lecturer**, *lecture for university open days for high-school students on Cosmology and Modern Science*, held in Feb 26 2021, MS Teams platform, Website.

2020 **Orientation Days Organizing Committee**, *Scuola Superiore Meridionale (SSM)*, events for university open days for high-school students held in Jun 6 and 11 2020, MS Teams platform, Website.

2019 **Seminars Coordinator**, *Astrophysics group Lunch Talk*, weekly meeting, Federico II University, Physics department, Naples, Italy.

Outreach

2025 **European Researchers Night, STREETS**, *meeting between researchers and citizens to disseminate scientific culture and knowledge of research professions*, Naples, Italy.

2024 **University orientation at high schools**, *dissemination seminars for high school students in Campania*, organized by SSM- Scuola Superiore Meridionale, Italy.

2024 **Che bello fare fisica**, *organised by "Science and School" and aimed at secondary school students*, in collaboration with the University of Naples, Italy, Website.

2023 **UnivExpo**, *Regional university orientation event, organised by ATENEAPOLI and aimed at secondary school students.*, Naples, Italy, Website.

2022-2024 **Make It Easy Challenge**, *Jury member for the national high school competition initiative on topics of Physics, Mathematics or Biological Sciences*, online, Italy, Website.

2022 **European Researchers Night, STREETS**, *meeting between researchers and citizens to disseminate scientific culture and knowledge of research professions*, Naples, Italy, Website.

2022 **Women and Girls in Astronomy**, *event for university and high school students*, round table discussion on gender topic, Department of Physics "Ettore Pancini", Naples, Italy, Website.

2022 **Seminario ex studenti**, *event for high school students*, scientific seminar on *Cosmology and the modern science*, Liceo Scientifico *Democrito* of Rome, Italy.

2019 **Futuro Remoto 2019**, *scientific festival*, scientific disseminator in the *Physics in Space* section for INFN initiatives, exposed in *Cittá della scienza* of Naple, Italy.

2018 **Oggiscienza.it**, *SISSA medialab online magazine*, Interview on "The universe after the big bang".

2015 **Escola de inverno 2015**, *scientific festival*, lecture on *The early universe*, Observatório Nacional, Rio de Janeiro, RJ, Brazil.

2009 **"L'Universo" Festival delle Scienze 2009**, *scientific festival*, technical and organisational management of events in the inflatable planetarium, *Auditorium of Rome*, Italy.

2008 **Astronomical explainer course**, *Rome planetarium*, scientific dissemination training for the 2009 International Year of Astronomy events.

Visited Institutions - short periods

2019 **Laboratoire de Physique et Chimie de l' Environnement et de l' Espace, Orléans**, Inviting professor: Alessandro Spallicci.

2018 **Astrophysics Institute of Lisbon University, Lisbon**, Inviting: Noemi Frusciante.

2012 **Ludwigs Maximilians University, Munich**, Inviting professor: Jochen Weller.

2011 **Irvine, University of California**, Inviting professor: Asantha Cooray.

Reviewed Journals - Verified peer reviews certified by WOS at the link

Since 2025 **Advisory Board Member**, *Brazilian Journal of Physics*, Springer Nature, ISSN: 1678-4448 | 2025 Impact Factor: 1.7.

Since 2023 **Co-Editor**, *Europhysics Letters (EPL)*, IOP Publishing Ltd, ISSN: 1286-4854 | 2023 Impact Factor: 1.96.

Reviewer **The Astrophysical Journal (ApJ)**, *AAS*, ISSN 1538-4357, 2022 IF: 5.9.

Reviewer **Physical Review D (PRD)**, *APS*, ISSN 2470-0029, 2021 IF: 5.4.

Reviewer **Journal of Cosmology and Astroparticle Physics (JCAP)**, *IOP Publishing Ltd*, ISSN 1475-7516, 2021 IF: 7.28.

Reviewer **The European Physical Journal C (EPJC)**, ISSN 1434-6052, 2021 IF: 4.99.

Reviewer **Physics of the Dark Universe (PDU)**, *Elsevier Journal*, ISSN 2212-6864, 2021 IF:5.09.

Reviewer **Physics Letters B (PLB)**, *Elsevier Journal*, ISSN 1873-2445, 2022 IF: 4.95.

Reviewer **Frontiers in Astronomy and Space Sciences**, ISSN 2296-987X, IS:3.5.

Reviewer **Modern Physics Letters A (MPLA)**, *WSJ*, ISSN 1793-6632, 2022 IF: 2.6.

Reviewer **Heliyon**, *Elsevier Journal*, ISSN 2405-8440, 2021 IF: 3.77.

Reviewer **Universe**, *MDPI Journal*, ISSN 2218-1997, 2023 IF: 2.9.

Other

May 2025 **Certified CO.IN.FO Course**, *Funded Research: An Overview of European and National Grants (14 hours)*, delivered by the Interuniversity Consortium on Training (CO.IN.FO) for the staff of the Scuola Superiore Meridionale (SSM).

2018 **Winner of CANTATA Short Term Scientific Missions (STSM) grant**, *project: Investigating Hybrid-garvity modification of gravity with the EFT approach and cosmological constraints*.

2018 **24 university credits (CFU) in anthropo-psycho-pedagogical disciplines and in teaching methodologies and technologies**, *mandatory for secondary school teaching in Italy*.

2012 **Winner of Sapienza grant "Avvio alla ricerca 2012"**, *project: "Study and analysis of the constraints of cosmological parameters and features in the inflationary primordial spectra, forecast for future experiments. Cosmological model-free analysis of the state equation dynamics of dark energy"*.

Affiliations and Membership

2024-now **COSMOS**, *interdisciplinary network of astrophysicists and cosmologists collaborating with philosophers and historians on the study of the universe*, Project website.

2022-now **ET**, *Einstein Telescope*, Cosmology division.

2021-now **SIGRAV**, *Italian Society of General Relativity and Gravitation*.

2018-now **INFN**, *Istituto Nazionale di Fisica Nucleare*, Naples Section.

2018-now **INFN-QGSKY**, *Iniziativa specifica*, Quantum Gravity in the SKY.

2014-now **J-PAS**, *Javalambre Physics of the Accelerating Universe Astrophysical Survey*, Terory Group.

2009-now **SIF**, *Italian Physical Society*.

2023-now **EPS**, *European Physical Society*.

2014-2018 **SDSS-IV**, *eBOSS*, Sloan Digital Sky Survey.

2010-2014 **SDSS-III**, *Sloan Digital Sky Survey*.

2010-2014 **Euclid Consortium**.

2010-2014 **INFN**, *Istituto Nazionale di Fisica Nucleare*, Rome Section.

Computer Skills

General	Microsoft Windows and Linux OSs, Office Packages, LaTeX
Programming languages	FORTRAN (Certified CASPUR course on Fortran 95), PYTHON, IDL, C++
Scientific	Data analysis Software (Origin), Mathematica, Software packages and analysis tools (as CosmoMC, Multinest, Monte Python, CAMB, CLASS codes)

Languages

Italian	**Mother tongue**	
English	**Good command**	○ *Two years course in The New British Center Institute, Rome* ○ *English summer Course in "St. Mary School" (Shaftesbury, Dorset)* ○ *English summer Course in Malta*
Brazilian Portuguese	**Good command**	○ *Brazilian Portuguese course in Brazilian Consulate, Rome* ○ *Brazilian Portuguese course in Hoy! Cultural center, Rome*

Talks, posters and Seminars

Invited Lectures in PhD School

▷ *III Meeting of Theoretical Physics GIFT-UNIFEI*, Nov 7-12 2022, Itajuba, Brasil, School website

Invited Talks and Seminars

▷ *Annual national QGSky (INFN iniziativa specifica) workshop*, Nov 13-14 2025, Catania, Italy, Conference website

▷ *Workshop on Tensions in Cosmology*,International Meeting, Sept 02-08 2025, Corfú, Greece Workshop website

▷ *Szczecin Friday Cosmology Seminar*, Cosmology group Seminars, Apr 04 2025

▷ *International Astronomical Union (IAU) Online series*, Early Carrier Astronomer, Mar 07 2025, Conference website

▷ *Re[Incontri] di Fisica Partenopea*, Physics department Workshop, Dec 19-22 2023, Naples, Italy, Conference website

▷ *AstroParticle Symposium 2023*, Oct 30- Nov 3 2023, Pascal Institute of the Paris-Saclay University, France, Conference website

▷ *Annual national QGSky (INFN iniziativa specifica) workshop*, Oct 5-6 2023, Genova, Italy Conference website

▷ *Dark Energy from Fundamental Theories to Observations Conference*, Sept 11-15 2023, Frascati, Italy, Conference website

▷ *Cosmological Tensions and its implication to Concordance Cosmology*, Jun 12-23 2023, Trieste, Italy, Workshop website

▷ *Arcetri Observatory*, Extragalactic meeting Seminars, Apr 5 2023, Florence, Italy

▷ *National Observatory of Rio de Janeiro*, GCON Seminars, Mar 8 2023, Webinar

▷ *Re[Incontri] di Fisica Partenopea*, Physics department Workshop, Dec 21-23 2022, Naples, Italy, Conference website

▷ *Annual national QGSky (INFN iniziativa specifica) workshop*, Oct 26-27 2022, Rome, Italy

- *Tensions in Cosmology*, Sept 7-12 2022, Corfú, Greece, Conference website
- *Annual national QGSky (INFN iniziativa specifica) workshop*, Dec 1-3 2021, Webinar
- *XXIV SIGRAV Conference*, International meeting, Sept 7-9 2021, Urbino, Italy, Conference website
- *Federal University of Bahia*, Physics Institute Seminars, March 31 2021, Webinar
- *University of Milan*, Cosmology group Seminars, March 26 2021, Webinar
- *First Astrocientistas meeting*, International meeting, February 09 2021, Webinar, Conference website
- *National Observatory of Rio de Janeiro*, Cosmology group Seminars, June 24 2020, Webinar
- *Annual national QGSky (INFN iniziativa specifica) workshop*, Oct 17-18 2019, Trieste, Italy, Conference website
- *Lisbon University*, Astrophysics Institute Seminars, Nov 16 2018, Lisbon, Portugual
- *Valongo Observatory*, Apr 02 2018, Rio de Janeiro, Brazil
- *Federal University of Rio de Janeiro*, Physics Institute (IF-UFRJ), ARCOS group Seminars, March 29 2018, Brazil
- *Federal University of Rio Grande do Norte*, International Institute of Physics Seminars, Nov 7 2017, Brazil
- *Federal University of Bahia*, Physics Institute Seminars, Oct 20 2017, Brazil
- *Brazilian Center of Physical Research*, COSMO-CBPF Seminars, Aug 28 2017, Rio de Janeiro, Brazil
- *Federal University of Rio de Janeiro*, Physics Institute (IF-UFRJ), ARCOS group Seminars, Jun 02 2016, Brazil

Contributed conference talks

- Presented talk in *Progress on Old and New Themes in Cosmology (PONT) 2023*- International meeting, May 1-5 2023, Avignon, France
- Presented talk in "Tensions on LCDM cosmological model and model-independent constraints" section of *XVth Marcel Grossmann Meeting* - International meeting, July 1-7 2018, Rome, Italy
- Presented talk in "Extended Gravity and Quantum Cosmology" section of *XVth Marcel Grossmann Meeting* - International meeting, July 1-7 2018, Rome, Italy
- Presented talk in *IV CosmoSul - Cosmology and Gravitation in the Southern Cone* - International meeting, Jul 31-2nd Aug 2017, Sao Paulo, SP, Brazil
- Presented poster in *IVth Meeting on Fundamental Cosmology* - International meeting, Jun 15-17 2016, Barcelona, Spain
- Presented talk in *IVth Ofícina Carioca de cosmologia e gravitação* - Local meeting, Apr 18-20 2016, Rio de Janeiro, RJ, Brazil
- Presented talk in *XIVth Marcel Grossmann Meeting* - International meeting, July 12-18 2015, Rome, Italy
- Presented talk in *Meeting on Fundamental Cosmology* - International meeting, June 17-19 2015, Santander, Spain
- Presented talk in *VIth Workshop Challenges Of New Physics In Space* - International meeting, May 24-29 2015, Campos do Jordão, SP, Brazil
- Presented talk in *IInd Cesar Lattes Meeting* - International ICRAnet meeting, Apr 13-18 2015, Rio de Janeiro, RJ, Brazil

- Presented talk in *Xth J-PAS Collaboration Meeting* - International J-PAS meeting, Feb 9-13 2015, Paraty, RJ, Brazil
- Presented talk in *Theory Miniworkshop J-PAS collaboration* - National J-PAS meeting, Oct 15 2014, Rio de Janeiro, RJ, Brazil
- Presented poster in *New Horizons for Observational Cosmology* - Ph.D School, Jun 30 -July 6 2013, Varenna, Italy
- Presented poster in *Essential Cosmology for the Netx Generation* - Ph.D School, Jan 16-21 2012, Cancun, Mexico
- Presented talk in *The third Galileo - Xu Guangqi meeting* - International Conference, Oct 9-15 2011, Beijing, China

Conferences participation

- Attended *CosmoVerse@Instanbul2025* - International Meeting, June 24-26 2025, Instanbul, Turkey. Conference website
- Attended *Ascona Workshop 2025: Back-reaction Effects on Cosmological Observables* - International Workshop, June 22-25 2025, Ascona, Switzerland. Workshop website
- Attended *CosmoVerse@Krakow 2024* - International Meeting, July 9-11 2024, Krakow, Poland. Conference website
- Attended in online mode the *XVIII J-PAS Meeting* - International Meeting, Sept 12-15 2022, Teruel, Spain. Conference website
- Attended in online mode *From Planck to the future of CMB* - International Meeting, May 23-27 2022, Ferrara, Italy. Conference website
- Panelist for *Golden Webinars in Astrophysics* - Pavel Kroupa seminar, 9 Apr 2021, online meeting Website
- Attended the *Doubly Special Relativity (DSR20)* - Workshop of the COST Action CA18108, Dec 14-16 2020, online meeting Conference website
- Attended the *Progress on Old and New Themes in cosmology (PONT)* - International Meeting, Dec 7-11 2020, online meeting Conference website
- Attended the *BeyondPlanck Release Conference* - International Meeting, Nov 18-20 2020, online meeting Conference website
- Attended the *ASI/COSMOS Workshop on "LambdaCDM"* - International Meeting, May 28-29 2019, Rome, RM, Italy
- Attended the *First European Physical Society Conference on Gravitation* - International Meeting, Feb 19-21 2019, Rome, RM, Italy
- Attended the *Euclid & Beyond - The many faces of modern Cosmology* - National Meeting, Feb 11-14 2019, Rome, RM, Italy
- Attended the *School on Open Problems in Cosmology* - Ph.D School, Jul 17-28 2017, Sao Paulo, SP, Brazil
- Attended the *XIVth J-PAS Collaboration Meeting* - International J-PAS meeting, March 27-31 2017, Rio de Janeiro, RJ, Brazil
- Attended the *IVth Jayme Tiomno School of Cosmology* - Ph.D School, Aug 30 - 1th Sept 2016, Rio de Janeiro, RJ, Brazil
- Attended the *XIIth J-PAS Collaboration Meeting* - International J-PAS meeting, Apr 11-15 2016, Rio de Janeiro, RJ, Brazil
- Attended the *School of Theory of cosmological perturbations* - Ph.D School, Nov 12-14 2014, Rio de Janeiro, RJ, Brazil

- ▷ Attended the *XIXth Cycle of Special Courses (CCE)* - Ph.D School, Nov 3-7 2014, Rio de Janeiro, RJ, Brazil
- ▷ Attended the *Ist School of Statistical Methods in Physics* - Ph.D School, Oct 6-10 2014, Goiania, GO, Brazil
- ▷ Attended the *XIth School of Cosmology, Gravitational Lenses: their impact in the study of galaxies and Cosmology* - Ph.D School, Sept 17-22 2012, Cargese, France
- ▷ Attended the *Euclid Mission Conference 2012* - International Conference, May 14-17 2012, Copenhagen, Denmark
- ▷ Attended the *Azores school on observational Cosmology* - Ph.D School, Sept 1-5 2011, Angra do Heroismo, Azores, Portugal
- ▷ Attended the *Sciences Fondamentales et Appliques* - IRAP Ph.D Erasmus Mundus School, May 25-30 2011, Nizza, France
- ▷ Attended the *Neutrinos in Cosmology* - INFN Formation School, May 16-18 2011, Padova, Italy
- ▷ Attended the *Dark Energy probes - Dynamical evolution of globular clusters* - School of Astrophysics “Francesco Lucchin", May 8-13 2011, Bertinoro, Italy
- ▷ Attended the *From Nuclei to white Dwarfs and Neutron Stars* - IRAP Ph.D Erasmus Mundus Workshop, Apr 3-8 2011, Les Housches, France