

Invited talks

51. 08/22/23 University of Texas at Austin (USA), Axions as dark matter or dark radiation
50. 07/18/23 University of Bologna (IT), [The interplay of primordial black holes, dark matter, and axions](#)
49. 05/16/23 Fudan University, Shanghai (CHN), [Dark radiation in the Universe](#)
48. 02/09/23 University of Napoli (IT), The interplay of primordial black holes, dark matter, and axions
47. 02/09/23 [Trento \(IT\)](#), The interplay of primordial black holes and particle dark matter
46. 02/06/23 Ferrara (IT), The interplay of primordial black holes and particle dark matter
45. 01/26/23 [DESY \(DE\)](#), Novel Cosmological Bounds on Thermally-produced Axion-like Particles
44. 05/20/22 [Chinese Academy of Science, Beijing \(CHN\)](#), Radio signals from axions conversion
43. 04/27/22 [KEK, Tsukuba \(JP\)](#), Radio signals from axions conversion
42. 04/08/22 Indian Institute of Technology, Mumbai (IN), [Superradiance evolution of black hole shadows](#)
41. 12/15/21 University of Helsinki (FI), Radio signals from axion miniclusters colliding with neutron stars
40. 10/14/21 SISSA, Trieste (IT), Radio signals from axion miniclusters colliding with neutron stars
39. 06/11/21 University of L'Aquila (IT), The population of axion miniclusters in the Galaxy
38. 04/26/21 Shanghai Jiao Tong University, Shanghai (CHN), Direct detection of dark energy
37. 02/17/21 Kavli IPMU, Tokyo (JP), [The interplay of primordial black holes and particle dark matter](#)
36. 11/04/20 Institute of Physics, Academia Sinica (TW), *Compact objects and dark matter*
35. 10/13/20 Undergraduate seminar, Colgate University (NY), *One dark matter candidate: the axion*
34. 06/04/20 International Institute of Physics, Natal (BR), *Radio and gravitational wave signals from cosmic axions* [[LINK to the YouTube video on the IIP channel: <https://rb.gy/tsg0of>](#)]
33. 05/11/20 Newton 1665 webinars series, *New physics out of the Shadow* [[LINK to the YouTube video on the Newton1665 channel: <https://www.youtube.com/watch?v=yCDUfzv8oKY>](#)]
32. 04/29/20 Latin American Webinars (LAWphysics) series, *Astrophysics with axion stars and miniclusters* [[LINK to the YouTube video on the LAWphysics channel: <https://www.youtube.com/watch?v=ilfmBKMgyH8>](#)]
31. 04/07/20 University of Texas at Austin (USA), [The future of light boson dark matter](#)
30. 03/02/20 DAMTP Institute of Astronomy, University of Cambridge (UK), *Light boson dark matter*
29. 12/20/19 National Institute Of Chemical Physics And Biophysics, Tallinn (ES), *Light boson dark matter*
28. 11/27/19 Fudan University, Shanghai (CHN), *Testing the rotational nature of the supermassive object M87**
27. 11/25/19 Shanghai Jiao Tong University, Shanghai (CHN), *Light bosons as dark matter candidates*
26. 11/07/19 Nordita, Stockholm (SE), [Testing the rotational nature of the supermassive object M87*](#)
25. 05/21/19 INFN Frascati, Rome (IT), [Axion miniclusters and implications for axion detection](#)
24. 05/10/19 Wayne State University, MI (USA), [Probing the Early Universe with Axion Physics](#)
23. 05/01/19 Kavli Institute for Cosmological Physics, IL (USA), [Probing the Early Universe with Axions](#)
22. 04/30/19 Argonne National Laboratory, IL (USA), [Probing the Early Universe with Axions](#)
21. 04/25/19 University of Michigan, MI (USA), *The Quest for the Axion*
20. 04/17/19 Barry University, FL (USA), *Introduction to Cosmology and Particle Physics*
19. 04/12/19 University of Florida, FL (USA), [Probing the Early Universe with Axion Physics](#)
18. 04/04/19 IFIC, Valencia (ES), [Probing the Early Universe with Axions](#)
17. 01/08/19 SISSA, Trieste (IT), *The Cold Dark Matter axion and Axion Stars*
16. 10/23/18 Nikhef Amsterdam (NL), [The Quest for the Axion](#)

15. 11/30/18 INFN Frascati, Rome (IT), [Motivations for the search of light axions](#)
14. 10/23/18 University of Bologna (IT), [Searching for Axions and the String Axiverse in the Cosmo](#)
13. 10/18/18 INFN Frascati, Rome (IT), [Searching for Axions in the Lab and in the Cosmo](#)
12. 04/11/18 Latin American Webinars (LAWphysics) series, [The axion in cosmology and astrophysics](#)
[\[LINK to the YouTube video on the LAWphysics channel: https://www.youtube.com/watch?v=YWqVpPrpLjw\]](https://www.youtube.com/watch?v=YWqVpPrpLjw)
11. 02/01/18 CEICO, Prague (CZ), [The Cold Dark Matter axion and Axion Stars](#)
10. 12/01/17 University of Turin (IT), [The Cold Dark Matter axion and Axion Stars](#)
9. 08/16/17 University of Oslo (NO), [Dark matter capture and neutrino observatories](#)
8. 06/15/17 University of Bologna (IT), [Dark matter capture and neutrino observatories](#)
7. 02/01/07 University of Michigan, MI (USA), [Axion cold dark matter, miniclusters, and axion stars](#)
6. 10/25/16 University of Helsinki (FI), [Axion cold dark matter, status and perspectives](#)
5. 01/21/16 University of Zaragoza (ES), [Axion cold dark matter, status and perspectives](#)
4. 06/03/13 CMCC Lecce (IT), [Impacts of Data Assimilation on the Global Ocean Carbonate System](#)
3. 06/15/11 University of Pisa (IT), [Axion cold dark matter in standard and non-standard cosmologies](#)
2. 10/12/10 University of New Mexico, NM (USA), [An integral equation for distorted-wave amplitudes](#)
1. 05/21/09 University of Bologna (IT), [Axion cold dark matter revisited](#)

Conference talks

40. 11/16-18 23 [The 9th China LHC Physics Workshop \(CLHCP2023\)](#), Shanghai (CHN), [Theoretical Motivations for Hidden Light Bosons](#)
39. 11/10-13 23 [International Symposium on Cosmology and Particle Astrophysics CosPA 2023](#), Hong Kong, [Direct detection experiments and light bosons](#)
38. 10/30-11/3 23 [IBS Conference on Dark World 2023](#), IBS Science and Culture Center, Daejeon (Korea), [Direct detection experiments and light bosons](#)
37. 09/15 23 [Dark Energy from Fundamental Theories to Observations](#), Frascati (Italy), [Direct detection experiments and light chameleons](#)
36. 09/11-14 23 [Plenary talk on axions at TeVPA 2023](#), Napoli (Italy), [The QCD axion: theory, phenomenology, and searches](#)
35. 06/19-21 23 [New Horizons in Primordial Black Hole physics \(NEHOP\)](#), Napoli (Italy), [Primordial black holes and particle dark matter are intimately intertwined](#)
34. 06/5-9 23 [Axion Across Boundaries](#), Galileo Galilei Institute, Arcetri (Italy), [Axions and inflation \[YouTube\]](#)
33. 02/23-24 23 [Kick-off Meeting of COST Action COSMIC WISPerS](#), INFN Frascati (Italy), [Axions and PBHs](#)
32. 11/18-20 22 [Particle Physics and Cosmology Symposium 2022](#), Shanghai (CHN), [Novel Cosmological Bounds on Thermally-produced Axion-like Particles](#)
31. 11/29-12/03 21 [Sixth Colombian Meeting on High Energy Physics](#), Santa Marta (CO),
[Plenary speaker: Future probes of light bosons](#)
30. 10/12-13/21 [Cosmology Frontier in Particle Physics: Astroparticle Physics and Early Universe](#), NCTS NTU, [Axion miniclusters in the Milky Way](#)
29. 07/5-16/21 [Cosmology from Home 2021](#), [Direct detection of dark energy \[LINK to YouTube video\]](#)
28. 05/15/21 [TDLI International Workshop "Current Topics on Axion"](#), Shanghai Jiao Tong University, Shanghai (CHN),
[Indirect probes of axion dark matter](#)
27. 10/13-16/20 [The 5th IBS-IFT-MultiDark Workshop](#), Institute for Basic Science (IBS), Daejeon (KR), [Recent and future developments of dark matter axion physics](#)
26. 09/24/20 [CoCo 2020: Cosmology in Colombia](#), Bogotá (CO), [Constraints on Reheating to SM Particles due to Large Effective Higgs Boson Mass](#)

25. 08/24/20 [Cosmology from Home](#), *Axion Miniclusters: Tidal Disruption and Radioastronomy*
24. 07/21/20 [IDM2020](#), Zurich (CH), *The future of Axion Physics*
23. 09/2-6/19 [TeVPA 2019](#), Sydney (AU), *Probing the Early Universe with Axion Physics*
22. 06/24-06/26 [Vera Rubin Fest](#), Washington DC (USA), *Axions*
21. 06/10-14/19 [Invisibles19](#), Valencia (ES), *Coordinating one of the panel discussion session*
20. 12/18/18 [SLAP 2018](#), King's College London (UK), *The Cold Dark Matter axion and Axion Stars*
19. 12/11/18 [The quest for New Physics](#), Instituto de Física Corpuscular (ES), *Axion Stars*
18. 09/05/18 [Invisibles18 Workshop](#), Karlsruhe Institute of Technology (DE), *Dilute and dense axion stars*
17. 06/20/18 [14th Patras Workshop](#), DESY Hamburg (DE),
The Higgs Boson can delay Reheating after Inflation
16. 06/12/18 [Preparing for Dark Matter Particle Discovery](#), Chalmers University of Technology, Goteborg (SE), *The Higgs Boson can delay Reheating after Inflation*
15. 03/07/18 [Ultralight Dark Matter and Axions](#), University of Michigan (USA),
The parameter space of axion-like particles
14. 02/22/18 [UCLA Dark Matter 2018](#), UCLA (USA), *Axions in cosmology and astrophysics*
13. 08/31/17 [DavCO](#), CP³ Origin (DK), *Axions and ALPs as the Cold Dark Matter*
12. 08/04/17 [Self-interacting dark matter](#), Niels Bohr Institute (DK), *Sharpening Fuzzy Dark Matter*
11. 07/19/17 [Advances in Theoretical Cosmology in Light of Data](#) Nordita (SE), *Axion dark matter*
10. 12/06/16 [Axion Dark Matter workshop](#), Nordita (SE), *Axion dark matter, miniclusters, and axion stars*
9. 08/12/16 [IDM2016](#), Sheffield (UK), *Galactic Cold Dark Matter from First Principles*
8. 09/07/15 [TAUP 2015](#), Turin (IT) *Analytical expressions for the kinetic decoupling of WIMPs*
7. 11/19/14 [GEOCARBON Final Meeting](#), Paris (FR),
Summary contribution to GEOCARBON from Land and Ocean Components
6. 07/08/14 [NEMO Users Meeting](#), Grenoble (FR),
Assimilation of Physical and Carbonate Data on the Global Ocean Carbonate System
5. 10/15/10 [American Physical Society Four Corners Meeting](#), Ogden (USA),
An integral equation for distorted-wave amplitudes
4. 07/13/10 [PPC 2010 Conference](#), Turin (IT), *An integral equation for distorted-wave amplitudes*
3. 03/28/10 [SnowPac & SnowCluster 2010](#), Alta (USA), *Axion dark matter in non-standard cosmologies*
2. 07/02/09 [TAUP 2009](#), Rome (IT), *Axion cold dark matter revisited*
1. 10/20/07 [American Physical Society Four Corners](#), Flagstaff (USA),
Oscillation amplitude for neutrino wave packets

Workshop attendance

5. May 2023 [Axions across boundaries between Particle Physics, Astrophysics, Cosmology and forefront Detection Technologies](#), Galileo Galilei Institute, Arcetri (IT)
4. April 2017 [The 5th MCTP Spring Symposium](#), Ann Arbor, MI (USA)
3. September 2014 [Data Assimilation in Ocean Physics](#), Trieste (Italy)
2. June 2013 [Advanced School on Data Assimilation](#), Bologna (Italy)
1. December 2009 [Focus week on indirect dark matter search](#), IPMU Tokyo (Japan)