

Personal Information

Name: Maria Petropoulou
Date of Birth: 27/05/1985
Citizenship: Greek
Civil Status: Married
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Research Interests

High-energy phenomena: active galaxies, gamma-ray bursts, jets – Neutrino astronomy – Non-thermal radiative processes – Particle acceleration processes – Theoretical modeling

Professional Experience

- Assistant Professor (tenured)** **31/07/2020 – present**
Department of Physics, National & Kapodistrian University of Athens (NKUA) *Athens, Greece*
- Lyman Jr. Spitzer Postdoctoral Fellow** **16/10/2017 – 31/08/2020**
Department of Astrophysical Sciences, Princeton *Princeton, NJ, USA*
- Postdoctoral Research Associate** **01/12/2016 – 13/10/2017**
Department of Physics & Astronomy, Purdue *West Lafayette, IN, USA*
- NASA Einstein Postdoctoral Fellow** **01/12/2013 – 30/11/2016**
Department of Physics & Astronomy, Purdue *West Lafayette, IN, USA*

Education

- Ph.D., Physics (Excellent)** **2010 – 2014**
National & Kapodistrian University of Athens (NKUA) *Athens, Greece*
- M.Sc., Astrophysics, Astronomy & Mechanics (Excellent)** **2008 – 2010**
National & Kapodistrian University of Athens (NKUA) *Athens, Greece*
- Bachelor, Physics (Excellent)** **2003 – 2008**
National & Kapodistrian University of Athens (NKUA) *Athens, Greece*

Publications in Peer-Reviewed Journals

As of 05/04/2026, I have published **109** papers in peer-reviewed high-ranked journals, out of which **37** are first-author articles and about **20** are led by students under my supervision. My refereed publication list, which is available at this [link](#), has **4273** citations and h-index **34**. My full publication [list](#), including white papers and conference proceedings, has **4666** citations and h-index **36** (metrics are based on NASA ADS).

Prizes, Awards & Scholarships

- Excellence in Research Award, National & Kapodistrian University of Athens** **2026**
- Bodossaki Scientific Award, Bodossaki Foundation (€20,000)** **2025**
- Mercator Fellow, Deutsche Forschungsgemeinschaft (DFG)** **2021 – 2024**
- L'Oréal–UNESCO Award for Women in Science, Greece, L'Oréal Fondation (€10,000)** **2021**
- Best PhD Thesis Prize, Theoretical Astrophysics, MERAC Fondation (€20,000)** **2016**
- Best PhD Thesis Prize, Hellenic Astronomical Society** **2015**
- Heraclitus II Doctorate Scholarship, NSRF, European Commission (~€36,000)** **2010 – 2013**
 (PI: Prof. A. Mastichiadis)
- Pre-graduate Scholarships for Higher Education, IKY** **2003 – 2006**
- Award for best score in entry exams to Physics Department, IKY** **2003**
- Award for best score in entry exams to Physics Department, EuroBank (€1,000)** **2003**

Awarded Research Proposals

- **IKYDA 2024, IKY**, Funding €13,950.00 **2024 – 2026**
Received as PI.
- **2nd Call for H.F.R.I. Research Projects to support Faculty Members and Researchers, H.F.R.I.**, Funding: €199,892 **2022 – 2025**
Received as PI.
- **Astrophysics Research Project, MERAC Foundation**, Funding: €100,000 **2021 – 2023**
Received as PI.
- **Fermi Guest Investigator Program Cycle 12**, Funding: \$60,500 **2019 – 2020**
Received as co-investigator (Co-I).
Budget PI: A. Tchekhovskoy (Northwestern University)
- **Fermi Guest Investigator Program Cycle 11**, Funding: \$55,000 **2018 – 2019**
Received as PI.
- **Fermi Guest Investigator Program Cycle 9**, Funding: \$60,000 **2016 – 2018**
Received as co-investigator (co-I). PI: L. Sironi (Columbia University)
- **NASA Astrophysics Theory Proposal (ATP)**, Funding: \$507,767 **2017 – 2020**
Received as co-I. PIs: D. Giannios (Purdue University), L. Sironi (Columbia University)

Awarded Observing Proposals

- **Swift Cycle 16 Guest Observer Program**, Funding: \$40,000 **2020 – 2021**
Received as Co-I. PI: G. Vasilopoulos (Yale University)
- **NuSTAR Guest Observer Program Cycle 5**, Funding: \$73,000 **2019 – 2020**
Received as Co-I. PI: M. Santander (University of Alabama)
- **XMM-Newton AO-18 Guest Observer Program**, Funding: \$68,000 **2019 – 2020**
Received as Co-I. PI: G. Vasilopoulos (Yale University)
- **XMM-Newton AO-17 Guest Observer Program** **2018 – 2019**
Received as Co-I. PI: G. Vasilopoulos (MPE)

Awarded Computing Proposals

- Texas Advanced Computing Center (TACC)** **2018 – 2019**
Received as PI. Time allocation: 126,477.0 Node Hours on Stampede2
- NASA Advanced Supercomputing facility** **2017 – 2018**
Received as PI. Time allocation: 614,000.0 CPU hours on Pleiades

Scientific Organization of Conferences & Workshops

1. SOC of **MIAPbP 2027** program, Garching, Munich, Germany, 08/02 - 05/03/2027 ([link](#))
2. SOC of **6th Hel.A.S. Summer School**, Department of Physics, Athens, 24 - 28/08/2026 ([link](#))
3. SOC & LOC of **MuMeNTA** workshop, Athens, 02/2026 ([link](#))
4. Co-chair *Neutrino astronomy & physics* panel, **ICRC 2025**, Geneva, Switzerland, 15-24/07/2025 ([link](#))
5. SOC of **17th Conference of Hel.A.S.**, Patras, Greece, 30/06 - 02/07/2025 ([link](#))
6. SOC & LOC of **GRB Forum 2024**, Athens, Greece, 8-12/07/2024 ([link](#))
7. SOC & LOC Chair of **16th Conference of Hel.A.S.**, Athens, Greece, 25-28/06/2023 ([link](#))
8. SOC at **Special Session in EAS Meeting**, “Relativistic Magnetospheres”, Krakow, Poland, 07/2023 ([link](#))
9. SOC at **4th Purdue Workshop on Relativistic Plasma Astrophysics**, Purdue University, USA, 05/2022
10. SOC at **Princeton Center for Theoretical Science Workshop**, “Understanding the Most Energetic Cosmic Accelerators: Advances in Theory & Simulation”, Princeton University, USA, 28-30/10/2020 ([link](#))
11. SOC at **European Week of Astronomy & Space Science**, “Jets and Disk-Winds Across Cosmic Scales” Lyon, France, 06/2019 ([link](#))

12. SOC at **eXtreme 2019**, Padova, Italy, 01/2019 ([link](#))
13. SOC at **European Week of Astronomy & Space Science**, “Astrophysical jets in the era of multi-messenger astronomy”, Liverpool, UK, 04/2018 ([link](#))
14. Convener at **29th Texas Symposium**, “AGN as Sources of Gamma-Rays, UHECRs and Neutrinos” Cape Town, South Africa, 12/2017
15. Convener at **TeV Particle Astrophysics Conference**, “Multi-messenger” session Columbus, OH, USA , 08/2017
16. SOC at **3rd Purdue Workshop on Relativistic Plasma Astrophysics**, Purdue University, USA, 05/2018 ([link](#))
17. SOC at **2nd Purdue Workshop on Relativistic Plasma Astrophysics**, Purdue University, USA, 05/2016 ([link](#))

Synergistic Activities & Professional Service

- **Management committees (MC):** COST action EXPAND ([CA24149](#)).
- **Science working groups:** Member of Science Working Group for [AXIS](#). Member of Science Working Group for non-selected missions: [STROBE-X](#), [HEX-P](#) and [AMEGO](#).
- **Proposal reviewer:**
 - NASA *Swift* and *Fermi* (panelist and chair)
 - NASA Astrophysics Data Analysis (ADAP) (panelist)
 - NASA Hubble Fellowship Program (panelist)
 - NASA Postdoctoral Program (NPP) Fellowships
 - National Science Center of Poland (PRELUDIUM)
 - ASI/INFN/INAF proposals
 - European Research Council (ERC) grant proposals
 - Deutsche Forschungsgemeinschaft (DFG) proposals
 - Hellenic Foundation of Research & Innovation (HFRI) proposals
- **Journal reviewer (since 2014):** Astronomy & Astrophysics (A&A), Monthly Notices of the Royal Astronomical (MNRAS), Physical Review D (PRD), Physical Review Letters (PRL), The Astrophysical Journal (ApJ), Journal of Cosmology and Astroparticle Physics (JCAP).
- **Memberships:** Hellenic Astronomical Society (Hel.A.S.), European Astronomical Society (EAS), Elected Secretary of Hel.A.S. (2022-26)
- **Colloquium organizer:**
 1. Organizer of the [Astrophysics Colloquium Series](#) at the Physics Department, NKUA (**since 2020**).
 2. Member of the committee for Astrophysics Colloquia of the Astrophysics Department at Princeton University and the Astrophysics Group at the Institute for Advanced Study (2019–2020).
- **Departmental service:**
 1. Accessibility Advisor Professor, Department of Physics, NKUA (2021–present)
 2. Member of the Internal Evaluation Committee, Department of Physics, NKUA (2022–present).
 3. Member of the Postgraduate Program “Physics” Coordination Committee, NKUA (2024 – present)
 4. Erasmus+ internships Coordinator, NKUA (2025 – present)

Supervision & Mentoring

Supervision of students/postdocs (NKUA)

Postdocs:	S. Dimitrakoudis (NKUA/IASA; 2023-25)
Ph.D. :	S. I. Stathopoulos ¹ (2022-25), D. Karavola (2023-)
M.Sc. diploma theses:	I. Stringos (2025-) D. Gkourmpatsis (2025-), G. Konstantis (2025-) X. Argyropoulos ² (2024-25), A. Tsilimidou (2023-24) M. Chatzis* (2023-24), D. Karavola* (2022-23), F. Psarras* (2021-22), S. I. Stathopoulos* (2020-21)
Undergraduate bachelor theses:	S. Gatsoulis (2025 -) M. Tsolaki (2025 -), A. Chlorou (2025 -), M. Gkoni (2025 - 26), A. Daioglou ⁴ (2025 - 26), E. Oikonomou (2024 -), K. Xyloportas ³ (2024-25), M. Kalitsounaki (2023-24), T. Tzavellas (2023-24), G. Konstantis (2023-24), S. Kontogianni (2022-24), E. Kontokostas (2022-24), I. Dalamagka (2022-23), O. Kefallinou (2022-23), A. S. Karaferias* (2021-22), T. I. Stasinou (2021-22), C. Tsioutis (2020-21), D. Karavola (2020-21), M. Chatzis* (UoC, 2019-21)
Undergraduate research projects:	E. Pavlidi (Winter 2025), G. Kyriopoulos (Winter 2024) G. Karydiannakis (Spring 2024), A. Menis (Winter 2023) S. L. Konstantinou (Spring 2022), F. Zantias (Spring 2022) A. Tzavellas (Spring 2022)

¹Graduated in 09/25, currently postdoc at DESY, Zeuthen

²PhD candidate at KU Leuven, Belgium

³Awarded a Bodossaki Scholarship for postgraduate studies (2025-2026)

⁴MSc student in “Physics” (NKUA)

Supervision of interns

In-person internships of foreign students at the Physics Department, NKUA.

M.Sc. students (2-4 months):	Elie Sévègnes (École Normale Supérieure de Lyon, 4 months in 2025), Aurélien Duchamps (Côte d’Azur, 2025), Filipp Sporykhin (Côte d’Azur, 2024) Cloé Mahe (Côte d’Azur, 2023), Sorya Lambert (Côte d’Azur, 2023)
PhD candidates:	Maria Rosaria Musone [†] (Università degli studi della Campania, 3 months in 2025) Giovanni Stel [†] (INAF/Osservatorio Astronomico di Brera, 3 months in 2024), Annika Rudolph (DESY Zeuthen, 2 months in 2022)

[†] External reviewer of PhD thesis

Co-supervision & mentoring of students

Ph.D. students:	I. Christie (Purdue, 2015-18), S. Boula (NKUA, 2018-21), I. Florou (NKUA, 2019-22), T. Pitik (Copenhagen, 2019-21), A. Rudolph (DESY Zeuthen, 2021-23), Z. Davis (Purdue, 2022-24)
M.Sc. students:	J. Teuchert [†] (RUB, Germany, 2025), D. Arfani* (NKUA, 2012-13), M. Polkas* (NKUA, 2019-20), D. Kantzas (NKUA, 2015-16)
Undergraduate students:	W. G. F. Mendieta (Purdue, 2014), C. J. Wiederhold (Purdue, 2016), K. Miller (Princeton, 2018)

[†] Member of MSc examination committee

Note.– Students are marked with an * when their research project for the bachelor thesis or MSc diploma thesis

was published in a peer-reviewed journal.

Teaching Experience

• Lecturer , <i>University of Athens</i>	2020-25
“High-Energy Astrophysics”, MSc level (18038)	
“High-Energy Astrophysics”, undergraduate level (10EK101)	
“Introduction to Astrophysics”, undergraduate level (10EKA01)	
• Lab Instructor , <i>University of Athens</i>	2020-25
“Physics I”, undergraduate level (10YKO05)	
• Lab Instructor , <i>University of Athens</i>	2020-22, 2024-25
“Physics IV”, undergraduate level (10YKO08)	
• Guest lecturer , <i>Niels Bohr Institute</i>	2025
“PhD Summer School on Neutrinos: Here, There & Everywhere”, graduate level	
• One-time guest lecturer , <i>Yale University</i>	2018
“Expanding Ideas of Time and Space: Relativity, Cosmology, and the Universe”, undergraduate level	
• Guest lecturer , <i>University of Athens</i>	2016
“2nd Hel.A.S. Astrophysics Summer School”, summer school	
• One-time guest lecturer , <i>Purdue University</i>	2016
“Cosmology and large-scale structure”, graduate level	
• One-time guest lecturer , <i>Purdue University</i>	2016
“Electromagnetism II”, graduate level	
• One-time guest lecturer , <i>University of Athens</i>	2013
“High-Energy Astrophysics”, graduate level	
• Teaching assistant , <i>University of Athens</i>	2012 – 2013
“High-Energy Astrophysics”, undergraduate level	

Invited Presentations to Conferences & Workshops

This list does not include 30 + contributed presentations (talks & posters).

1. *TeV Particle Astrophysics 2026*, Tendo, Japan, 30/08 - 04/09/2026
2. *Extragalactic jets at all scales: a Cretan view*, Heraklion, 25-29/08/2025 (not able to attend)
3. *13th CRIS-MAC 2024*, Trapani, Sicily, 17-21/06/2024
4. *Astrophysics workshop on numerical multimessenger modeling*, Ruhr-Universität, Bochum, Germany, 27/02/2023 - 01/03/2023
5. *High Energy Astrophysics in Southern Africa*, Online conference, 28/09-01/10/2022
6. *High Energy Astrophysics in Southern Africa*, Online conference, 13-17/09/2021
7. *Extragalactic jets on all scales - launching, propagation, termination*, Online conference, MPIA (Germany) /IIT Indore (India), 14–18/06/2021
8. *Relativistic astrophysics, Theory and observational perspectives*, Warsaw, Poland, (postponed)
9. *MeV Astronomy: Unlocking the Multi-Messenger Universe*, Honolulu, HI, 06/01/2020
10. *Mid-Atlantic Radio Loud AGN Meeting (MARLAM)*, University of Maryland, MA, USA, 31/10/2019
11. *Mini-conference at APS DPP Annual Meeting*, Fort Lauderdale, FL, USA, 21–25/10/2019
12. *Workshop on Perspectives in Astroparticle physics from High Energy Neutrinos*, Berlin, Germany, 25–27/09/2019
13. *Blazar Workshop*, Stanford University, USA, 28–30/08/2019
14. *HEPRO VII Conference*, Barcelona, Spain, 09–12/07/2019
15. *PAX V - Multi-Messenger 2019 Workshop*, Penn State University, PA, USA, 02–09/02/2019
16. *8th International Fermi Symposium*, Baltimore, MD, USA, 14–19/10/2018
17. *Magnetic reconnection in Space, Solar, Astrophysical, & Laboratory Plasmas*, Princeton University, NJ, USA, 04–08/09/2018
18. *Half a Century of Blazars and Beyond*, Turin, Italy, 11–15/06/2018
19. *MIAPP 2018 Workshop*, Garching, Germany, 26/02–23/03/2018
20. *TeVPA 2016 Conference*, CERN, Geveva, Switzerland, 12–16/09/2016
21. *Fellows at the Frontiers*, CIERA, Evanston, IL, USA, 31/08–02/09/2016

22. *EWASS 2016 Conference*, Athens, Greece, 04–08/07/2016
23. *The 14th Marcel Grossmann Meeting*, Rome, Italy, 12–18/07/2015
24. *The 12th Hellenic Astronomical Conference*, Thessaloniki, Greece, 28/06–02/07/2015

Invited Talks at Universities & Institutes

1. *Extragalactic Seminar*, National Observatory of Athens, online, 10/04/2025
2. *Astroparticle Physics Seminar* (DESY), Zeuthen, Germany, 20/09/2024
3. *Colloquium* at Astroparticule et Cosmologie (APC), Paris, 27/11/2023
4. *Galaxy Lunch Group Meeting* at Yale University, New Haven, USA, 06/09/2023
5. *Astrophysics Seminar* at Purdue University, West Lafayette, USA, 28/08/2023
6. *IAASARS Seminar*, National Observatory of Athens, 01/02/2023
7. *High-Energy Group Seminars*, Instituto di Astronomia, UNAM, 17/11/2022 (virtual)
8. *Astronomy Colloquium*, Anton Pannekoek Institute, University of Amsterdam, Netherlands, 2023 (postponed)
9. *Colloquium at the FORTH Institute of Astrophysics*, University of Crete, 05/2022 (virtual)
10. *Astroparticle Seminars of the Niels Bohr International Academy*, Neils Bohr Institute, Denmark, 11/2021 (virtual)
11. *TTK Seminar Series*, Theoretical Particle Physics and Cosmology, Aachen University, Germany, 01/2021 (virtual)
12. *CIERA Astrophysics Seminar*, Northwestern University, 05/11/2019
13. *KIPAC Astrophysics Colloquium*, Stanford, 01/11/2018
14. *Galaxies & Cosmology Seminar*, Harvard and Smithsonian Center for Astrophysics (CfA), 21/11/2017
15. *Astrophysics Seminar Series*, University of Athens, 13/09/2017
16. *RCAAM Seminar*, Research Center for Astronomy & Applied Mathematics, 12/09/2017
17. *TAPIR Fall 2016 Seminar*, Caltech, 18/11/2016
18. *Astrophysics Colloquia Series*, NASA Goddard Flight Center, 04/10/2016
19. *TAC Spring 2016 Seminar*, UC Berkeley, 16/05/2016
20. *HEP Seminar*, PennState University, 30/03/2016
21. *Fermi Group Meeting*, Naval Research Laboratory, 12/06/2015
22. *HEG-GRB Group Seminar*, Max-Planck für Extraterrestrische Physik, Garching, Germany, 06/08/2014

Soft Skills

- **Communications:** verbal, written, active listening
- **Self-management:** attitude, integrity, resilience, multi-tasking, accountability
- **Team work:** ability to operate effectively in a team environment, adaptability to new and diverse environments, quick character assessment
- **Strategies:** decision making, problem solving, critical thinking
- **Leadership:** strategic planing, conflict management, cultural awareness, negotiation, delegation, empathy