

Personal Information

Name: Maria Petropoulou
Date of Birth: 27/05/1985
Citizenship: Greek
Civil Status: Married
Email address: mpetropo@phys.uoa.gr
Personal website: <https://mpetropoulou-astro.com/>
Google Scholar: [Link](#)



Professional Experience

- Assistant Professor** **31/07/2020 – present**
Department of Physics, University of Athens *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 – 2013**
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*

Prizes, Awards & Scholarships

- 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** **2010 – 2013**
- 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

- Fermi Guest Investigator Program Cycle 12, Funding: \$60,500** **2019 – 2020**
Received as Science principal investigator (PI).
 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 at **Princeton Center for Theoretical Science Workshop**, “Understanding the Most Energetic Cosmic Accelerators: Advances in Theory & Simulation”, Princeton University, USA, 28-30/10/2020
2. SOC at **43rd COSPAR Scientific Assembly**, “Probing Energy Extraction From Supermassive Black Holes”, Sydney, Australia, *Postponed*
3. SOC at **4th Purdue Workshop on Relativistic Plasma Astrophysics**, Purdue University, USA, *Postponed*
4. SOC at **European Week of Astronomy & Space Science**, “Jets and Disk-Winds Across Cosmic Scales” Lyon, France, 06/2019
5. SOC at **eXtreme 2019**, Padova, Italy, 01/2019
6. SOC at **European Week of Astronomy & Space Science**, “Astrophysical jets in the era of multi-messenger astronomy”, Liverpool, UK, 04/2018
7. Convener at **29th Texas Symposium**, “AGN as Sources of Gamma-Rays, UHECRs and Neutrinos” Cape Town, South Africa, 12/2017
8. Convener at **TeV Particle Astrophysics Conference**, “Multi-messenger” session Columbus, OH, USA, 08/2017
9. SOC at **3rd Purdue Workshop on Relativistic Plasma Astrophysics**, Purdue University, USA, 05/2017
10. SOC at **2nd Purdue Workshop on Relativistic Plasma Astrophysics**, Purdue University, USA, 05/2016

Professional Service

- **Science working groups:** Member of NASA Multimessenger Astronomy Science Group, Member of Science Group for [STROBE-X](#) and [AMEGO](#).
- **Proposal reviewer:** NASA *Swift* and *Fermi* panels, NASA Astrophysics Data Analysis (ADAP), NASA Postdoctoral Program (NPP) Fellowships, National Science Center of Poland (PRELUDIUM), ASI/INFN/INAF proposals.
- **Journal reviewer:** 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).
- **Colloquium organizer:** 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). Organizer of the [Astrophysics Seminar Series](#) at the Physics Department (2020 – 2021).
- **Other:** Panelist at “Craft Your Career with Current Postdocs” session, Princeton University (04/2019). Panelist at “Post-Doc Q&A” session, Purdue University (04/2017). Judge at the New Haven Science Fair (05/2019). Mentor of graduate student Jens Mahlmann (University of Valencia) as part of the European Astronomical Society (EAS) mentoring scheme (07/2019–05/2020).

Memberships

- Member of the Hellenic Astronomical Society (Hel.A.S.)
- Member of the European Astronomical Society (EAS)
- Member of the American Astronomical Society (AAS)
- Member of the High Energy Astrophysics Division (HEAD)

Supervision & Mentoring

- **Tetyana Pitik**, graduate student, *University of Copenhagen* **2019 – present**
Co-supervision of PhD research (supervisor: I. Tamborra)
- **Margaritis Chatzis**, undergraduate student, *University of Crete* **2019 – present**
Supervision of bachelor thesis
- **Ioulia Florou**, graduate student, *University of Athens* **2019 – present**
Co-supervision of PhD research (supervisor: A. Mastichiadis)
- **Stella Boula**, graduate student, *University of Athens* **2018 – present**
Co-supervision of PhD research (supervisor: A. Mastichiadis)
- **Markos Polkas**, MSc student, *University of Athens* **2019 – 2020**
Co-supervision of MSc Thesis (supervisor: A. Mastichiadis)
- **Kathrine Miller**, undergraduate student, *Princeton University* **2018**
Supervision of summer research project.
- **Lingyi Dong**, graduate student, *Purdue University* **2016 – 2017**
Co-supervision of PhD research (supervisor: D. Giannios)
- **Caleb J. Wiederhold**, undergraduate student, *Purdue University* **2016**
Supervision of semester research project.
- **Ian M. Christie***, graduate student, *Purdue University* **2015 – 2018**
Co-supervision of PhD thesis (supervisor: D. Giannios)
*Principal FTL Systems Engineer at Northrop Grumman
- **Dimitrios Kantzas***, MSc student, *University of Athens* **2015 – 2016**
Co-supervision of MSc thesis (supervisor: A. Mastichiadis)
*Graduate student at University of Amsterdam (Supervisor S. Markoff)
- **Wilmar G. F. Mendieta**, undergraduate student, *Purdue University* **2014**
Mentoring during exchange research program (Colombia–USA)
- **Dafni Arfani**, MSc student, *University of Athens* **2012 – 2013**
Supervision of MSc thesis

Teaching Experience

- **One-time guest lecturer**, *Yale University* **2018**
“Expanding Ideas of Time and Space: Relativity, Cosmology, and the Universe”, undergraduate level
- **Guest lecturer**, *University of Athens* **2016**
“2nd Hel.A.S. Astrophysics Summer School”, summer school
- **One-time guest lecturer**, *Purdue University* **2016**
“Cosmology and large-scale structure”, graduate level
- **One-time guest lecturer**, *Purdue University* **2016**
“Electromagnetism II”, graduate level
- **One-time guest lecturer**, *University of Athens* **2013**
“High-Energy Astrophysics”, graduate level
- **Teaching assistant**, *University of Athens* **2012 – 2013**
“High-Energy Astrophysics”, undergraduate level

Invited Presentations to Conferences & Workshops

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

1. *Connecting high-energy astroparticle physics for origins of cosmic rays and future perspectives*, Yukawa Institute for Theoretical Physics, Kyoto, Japan, 7–10/12/2020
2. *Relativistic astrophysics, Theory and observational perspectives*, Warsaw, Poland, (postponed)
3. *Magnetic Reconnection 2020 Conference*, Alesund, Norway, 01–05/06/2020 (unable to attend)
4. *MeV Astronomy: Unlocking the Multi-Messenger Universe*, Honolulu, HI, 06/01/2020
5. *Mid-Atlantic Radio Loud AGN Meeting (MARLAM)*, University of Maryland, MA, USA, 31/10/2019
6. *Mini-conference at APS DPP Annual Meeting*, Fort Lauderdale, FL, USA, 21–25/10/2019
7. *16th International Conference on Topics in Astroparticle and Underground Physics*, Toyama, Japan, 09–13/09/2019 (unable to attend)

8. *Workshop on Perspectives in Astroparticle physics from High Energy Neutrinos*, Berlin, Germany, 25–27/09/2019
9. *Blazar Worskhop*, Stanford University, USA, 28–30/08/2019
10. *HEPRO VII Conference*, Barcelona, Spain, 09–12/07/2019
11. *PAX V - Multi-Messenger 2019 Workshop*, Penn State University, PA, USA, 02–09/02/2019
12. *8th International Fermi Symposium*, Baltimore, MD, USA, 14–19/10/2018
13. *Monitoring the non-thermal Universe 2018*, Cochem, Germany, 18–21/09/2018 (unable to attend)
14. *Magnetic reconnection in Space, Solar, Astrophysical, & Laboratory Plasmas*, Princeton University, NJ, USA, 04–08/09/2018
15. *TeVPA 2018*, Berlin, Germany, 27–31/08/2018 (unable to travel)
16. *Half a Century of Blazars and Beyond*, Turin, Italy, 11–15/06/2018
17. *MIAPP 2018 Workshop*, Garching, Germany, 26/02–23/03/2018
18. *TeVPA 2016 Conference*, CERN, Geveva, Switzerland, 12–16/09/2016
19. *Fellows at the Frontiers*, CIERA, Evanston, IL, USA, 31/08–02/09/2016
20. *EWASS 2016 Conference*, Athens, Greece, 04–08/07/2016
21. *The 14th Marcel Grossmann Meeting*, Rome, Italy, 12–18/07/2015
22. *The 12th Hellenic Astronomical Conference*, Thessaloniki, Greece, 28/06–02/07/2015

Invited Talks at Universities & Institutes

1. *TTK Seminar Series*, Theoretical Particle Physics and Cosmology, Aachen University, Germany 01/2021
2. *CIERA Astrophysics Seminar*, Northwestern University, 05/11/2019
3. *KIPAC Astrophysics Colloquium*, Stanford, 01/11/2018
4. *Galaxies & Cosmology Seminar*, Harvard and Smithsonian Center for Astrophysics (CfA), 21/11/2017
5. *Astrophysics Seminar Series*, University of Athens, 13/09/2017
6. *RCAAM Seminar*, Research Center for Astronomy & Applied Mathematics, 12/09/2017
7. *TAPIR Fall 2016 Seminar*, Caltech, 18/11/2016
8. *Astrophysics Colloquia Series*, NASA Goddard Flight Center, 04/10/2016
9. *TAC Spring 2016 Seminar*, UC Berkeley, 16/05/2016
10. *HEP Seminar*, PennState University, 30/03/2016
11. *Fermi Group Meeting*, Naval Research Laboratory, 12/06/2015
12. *HEG-GRB Group Seminar*, Max-Planck für Extraterrestrische Physik, Garching, Germany, 06/08/2014

Publications in Peer-Reviewed Journals

As of 21/09/2020, I have published 58 papers in peer-reviewed high-ranked journals, out of which 32 are first-author papers. The full publication list, which is available at this [link](#), has **1,482** citations and h-index **22**.

Main collaborators (in alphabetical order)

P. Beniamini (George Washington University), S. Buson (Würzburg University), R. Barniol Duran (California State University), I. M. Christie (Northwestern University), M. Coe (University of Southampton), C. C. Dermer (George Mason University; retired), S. Dimitrakoudis (University of Alberta), J. Finke (Naval Research Laboratory), M. Georganopoulos (University of Maryland), D. Giannios (Purdue University), P. Giommi (ASI Science Data Center), T. Hovatta (Metsähovi Radio Observatory), A. Keivani (Columbia University), H. Masaaki (University of Tokyo), A. Mastichiadis (University of Athens), E. Meyer (University of Maryland), K. Murase (Penn State University), K. Nalewajko (Nicolaus Copernicus Astronomical Center), F. Oikonomou (ESO), P. Padovani (ESO), D. Paneque (Max Planck Institute for Physics), T. Piran (Hebrew University), E. Resconi (Technische Universität München), M. Santander (University of Alabama), L. Sironi (Columbia University), A. Spitkovsky (Princeton University), G. Vasilopoulos (Yale University)