



Doctoral researcher at University of Turku (pouya.kouch@utu.fi / pouya.kouch@outlook.com)

Research interests: multi-messenger astronomy, AGN, time series analysis, polarization, numerical analysis

Positions

- **2022–2026: University of Turku** — *doctoral researcher*
→ PhD: Multi-messenger emission of relativistic jets launched by supermassive black holes
- **2023–2024: Metsähovi Radio Observatory, Aalto University** — *sivari*
→ AGN and solar monitoring radio observations as well as teacher assistance
- **2022–2023: Finnish Centre for Astronomy with ESO (FINCA)** — *project researcher*
→ Data reduction, time series, and statistical analysis of multi-wavelength observations of blazars
- **2018–2018: University of Turku** — *research assistant*
→ Time series analysis of cataclysmic variables

Education

- PhD (Astronomy), 2022–2026, University of Turku → (in progress, ETA [2026.09](#))
- MSc (Astronomy), 2019–2020, University of Oulu → 121 ECTS (weighted grade: 98%); [thesis](#) grade: 5/5
- BSc (Physics), 2014–2019, University of Oulu → 183 ECTS (weighted grade: 94%); [thesis](#) grade: 5/5

Publications

 — [ADS](#) / [arXiv](#) — H-index = 9

25. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.1093/mnras/stae2313](#) [MNRAS]
24. Chen et al. 2024 (incl. **Kouch, P.M.**), [10.3847/1538-4357/ad63a1](#) [ApJ]
23. **Kouch, P.M.** et al. 2024, [10.1051/0004-6361/202347624](#) [A&A] → Association of IceCube neutrinos with CGRaBS blazars
22. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.48550/arXiv.2409.18823](#) [arXiv]
21. Marshall et al. 2024 (incl. **Kouch, P.M.**), [10.3847/1538-4357/ad5671](#) [ApJ]
20. **Kouch, P.M.** et al. 2024, [10.1051/0004-6361/202449166](#) [A&A] → IXPE multiwavelength study on the HSP blazar PKS 2155–304
19. Nilsson et al. 2024 (incl. **Kouch, P.M.**), [10.48550/arXiv.2408.14854](#) [arXiv]
18. MAGIC Collaboration et al. 2024 (incl. **Kouch, P.M.**), [10.1093/mnras/stae1563](#) [MNRAS]
17. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.1088/1475-7516/2024/07/044](#) [JCAP]
16. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.1016/j.dark.2024.101425](#) [PDU]
15. MAGIC Collaboration et al. 2024 (incl. **Kouch, P.M.**), [10.1051/0004-6361/202348709](#) [A&A]
14. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.1093/mnras/stae697](#) [MNRAS]
13. MAGIC Collaboration et al. 2024 (incl. **Kouch, P.M.**), [10.1093/mnras/stae649](#) [MNRAS]
12. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.1051/0004-6361/202347988](#) [A&A]
11. Errando et al. 2024 (incl. **Kouch, P.M.**), [10.3847/1538-4357/ad1ce4](#) [ApJ]
10. MAGIC Collaboration et al. 2024 (incl. **Kouch, P.M.**), [10.1051/0004-6361/202347845](#) [A&A]
9. Abe et al. 2024 (incl. **Kouch, P.M.**), [10.1093/mnras/stad2958](#) [MNRAS]
8. Kim et al. 2024 (incl. **Kouch, P.M.**), [10.1051/0004-6361/202347408](#) [A&A]
7. Ehlert et al. 2023 (incl. **Kouch, P.M.**), [10.3847/1538-4357/ad05c4](#) [ApJ]
6. Abe et al. 2023 (incl. **Kouch, P.M.**), [10.1051/0004-6361/202346927](#) [A&A]
5. Di Gesu et al. 2023 (incl. **Kouch, P.M.**), [10.1038/s41550-023-02032-7](#) [NatAst]
4. Middei et al. 2023 (incl. **Kouch, P.M.**), [10.3847/2041-8213/acec3e](#) [ApJL]
3. Peirson et al. 2023 (incl. **Kouch, P.M.**), [10.3847/2041-8213/acd242](#) [ApJL]
2. Middei et al. 2023 (incl. **Kouch, P.M.**), [10.3847/2041-8213/aca281](#) [ApJL]
1. Di Gesu et al. 2022 (incl. **Kouch, P.M.**), [10.3847/2041-8213/ac913a](#) [ApJL]

Invited Talks, Colloquia, and Seminars

- 2024.10, 30+15, [IXPE collab.](#) (online): IXPE discovery – Observation of the LSP blazar S4 0954+65 during an optical-X-ray flare
- 2024.06, 45+15, [GRANDMA collab.](#) (online): Association of multiwavelength blazar flares with IceCube high-energy neutrinos
- 2024.05, 15+3, [Neutrino-Radio Astronomy: 1NM](#) (Gothenburg, Sweden): Association of IceCube neutrinos with major blazar flares?
- 2024.05, 12+3, [Astronomers' Days 2024](#) (Vaasa, Finland): Are blazars high-energy neutrino factories?
- 2024.05, 20+5, [TT 2024: Borderless Universe](#) (Turku, Finland): Are blazars emitting high-energy neutrinos?
- 2024.01, 15+5, [FinCOSPAR 2024](#) (Espoo, Finland): Are blazars emitting high energy neutrinos?

- 2023.09, 12+3, [TeVPA 2023](#) (Naples, Italy): HE Neutrinos vs Blazar flares in Radio & Optical
- 2023.04, 45+15, [Space Phy. & Astr. Dept., Uni. of Oulu](#) (Oulu, Finland): Connection between blazars and high-energy neutrinos
- 2022.05, 15+5, [Astronomers' Days 2022](#) (Jyväskylä, Finland): Blazar flares vs Neutrinos

Personal Grants and Funding Received

- UTUGS funded Doctoral Researcher position (2024.10–2026.09): € 50k
- EXACTUS travel grant (2023): € 1k
- FINCA fixed-term project researcher (2022.02–2024.01): € 50k

Organizational Grants and Funding Received

- As [FAS](#) President/VP: [Magnus Ehrnrooth Foundation](#) (2024–), € 3k (total)
- As [FAS](#) President/VP: [Federation of Finnish Learned Societies](#) (2023–), € 8k (total)

Successful Proposals

- **PI:** Nordic Optical Telescope (**4 h**) — 2024, [Period 70](#), ID:70-003
- **Co-I:** Nordic Optical Telescope (**39 h**) — 2024, [Period 70](#), ID:70-013
- **PI:** Nordic Optical Telescope (**11 h**) — 2024, [Period 69](#), ID:69-002
- **Co-I:** Nordic Optical Telescope (**32 h**) — 2024, [Period 69](#), ID:69-027
- **Co-I:** Imaging X-ray Polarimetry Explorer (**400 ks**) — 2024, [Cycle 1](#), ID:1043
- **Co-I:** Imaging X-ray Polarimetry Explorer (**200 ks**) — 2024, [Cycle 1](#), ID:1045
- **Co-I:** Imaging X-ray Polarimetry Explorer (**800 ks**) — 2024, [Cycle 1](#), ID:1077
- **Co-I:** Nordic Optical Telescope (**6 h**) — 2023, [Period 68](#), ID:68-011
- **PI:** Nordic Optical Telescope (**32 h**) — 2023, [Period 67](#), ID:67-015
- **Co-I:** [Montsec Observatory, TJO](#) (**680 h**) — 2022, Priority 8, Optical monitoring of VHE γ -ray emitting blazars

Observing Experiences

- [MRO](#), Metsähovi Radio Observatory (on-site and remotely for 14 weeks)
- [MAGIC](#), Major Atmospheric Gamma Imaging Cherenkov Telescopes (on-site for 4 weeks)
- [NOT](#), Nordic Optical Telescope (remotely for 3 nights)

Teaching Experiences

- **Teacher assistant** on the course [Astronomical View of the World \(ELEC-A4930\)](#) at Aalto University (2024)
- **Teacher assistant** on the course [Radio Astronomy \(ELEC-E4530\)](#) at Aalto University (2024)

Scientific Collaborations and Societies

- [European Astronomical Society](#) (2024–)
- [IXPE Collaboration](#) (2023–)
- [MAGIC Collaboration](#) (2022–)
- [Finnish Astronomical Society](#) (2022–)

Institutional Responsibilities and Commissions of Trust

- President of the [Finnish Astronomical Society](#) (2024.06–)
- Vice-President of the [Finnish Astronomical Society](#) (2023.06–2024.05)

Organization of Scientific Meetings

- Organizing committee of [Astronomers' Days 2024](#) conference (2024.05)

Outreach Activities

- Organizer of Astronomy outreach talk “*Jännittävät mustat aukot*”, ft. [Kvarken Space Center](#) (2024.05, Vaasa)

Professional References

- **Elina Lindfors** (University of Turku — *elilin@utu.fi*)
- **Talvikki Hovatta** (FINCA, Aalto University — *talvikki.hovatta@utu.fi*)
- **Ioannis Liodakis** (Marshall SFC, NASA — *yannis.liodakis@gmail.com*)