Dr Angelos Tsiaras

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Work Experience

- Visiting Professor – Aristotle University of Thessaloniki. October 2024 – Now
- Honorary Senior Research Fellow – University College London. February 2022 – February 2024
- Arcetri Fellow – INAF-Osservatorio Astrofisico di Arcetri. November 2021 – June 2023
- Senior Research Fellow – University College London. February 2020 – October 2021
- Research Fellow – University College London. November 2017 – January 2020
- Part time Research Astronomer – Royal Observatory Greenwich. October 2019 – June 2021

Current research activities

- Atmospheric characterisation of exoplanets with the HST and JWST.
  - 35 peer reviewed publication with +2000 citations, including the first detection of water in the atmosphere of a habitable-zone planet, the first large catalogue of exoplanetary atmospheres, and the first detection of a super-Earth atmosphere.
  - Pioneering machine learning applications in exoplanet data analysis with space telescopes.
  - Leading developer of open-source and user-friendly data analysis software for exoplanets.
- Ariel Mission (ESA's M4).
  - Co-coordinator of the ***Ephemerides*** working group
  - Co-coordinator of the ***ExoClock*** Project
  - Member of the Science Ground Segment Group

Community Service

- Panel member for the JWST Cycle 2 Time Allocation Committee. April 2023
- Panel member for the JWST Cycle 1 Time Allocation Committee. February 2021
- Reviewer for Science, Nature Astronomy, ApJ, AJ, A&A, MNRAS, PASP. since 2016
- EPEC Officer of the Europlanet Society Ireland and UK hub. 2019-2021
- Co-chair of the EPEC Early Career Support Working Group. 2018-2020

Press releases

- First detection of water in the atmosphere of a habitable-zone planet (press release):
  - Top article for the physical sciences in the Altmetric 2019 Top 100 (and No 33 overall, UCL)
  - Interviews for top media worldwide (e.g. BBC, Sky, The Guardian), +4000 articles produced
  - In the top 5% of all articles ever tracked by Altmetric.
- First detection of a super-Earth atmosphere (press release)
  - World-wide coverage, translated to more than 10 different languages.
  - Articles: Hubble Space Telescope, European Space Agency, Europlanet, BBC, Nature, Forbes, Daily Mail, Washington Post, Time, Wired.
- First large catalogue of exoplanetary atmospheres (press release)
  - Articles: Europlanet, EPSC.

Education

- **PhD in Astronomy** – VIVA passed with no corrections September 2014 – September 2017
  Department of Physics and Astronomy, University College London (UCL), UK.
  Thesis: *Towards a population of exoplanetary atmospheres* (external link).
- **BSc in Physics (Ptychion)** 9.38/10.00 – First Class September 2009 – July 2014
  Department of Physics, Aristotle University of Thessaloniki (AUTh), Greece. Thesis: *Detection of additional exoplanets and simulation of perturbations on transit light-curves*.

Fellowships & Awards

- Arcetri Fellowship, Florence, Italy. June 2021
- NASA Postdoctoral Fellowship (offer rejected), NASA Ames, USA. January 2018
- Royal Astronomical Society grant, London, UK. March 2017
- Royal Astronomical Society grant, London, UK. October 2016
- Honorable mention: October 2009
  3rd International Olympiad on Astronomy and Astrophysics, Tehran, Iran.
- 2nd prize: 14th Greek National Competition on Astronomy & Space, Volos, Greece. March 2009
- 1st prize: Vasilis Xanthopoulos Mathematics-Physics Competition, Drama, Greece. March 2009

Teaching Experience

- Courses in Aristotle University of Thessaloniki:
  - Calculus I (1st year). 2024 – 2025
  - Astronomy & Astrophysics (3rd year). 2024 – 2025
  - Astrophysics (4th year). 2024 – 2025
  - Observational Astronomy (4th year). 2024 – 2025
  - Planetary Systems (4th year). 2024 – 2025
- MSc students supervised:
  - Luis Thomas, UCL (then PhD at Ludwig Maximilian University, Germany). 2020 – 2021
  - Andrew Jolly, UCL (then PhD at University of New South Wales, Australia). 2019 – 2020
- MSc students co-supervised:
  - James Ozden, UCL (then PhD at University of New South Wales, Australia). 2017 – 2018
  - Yip Kai, UCL (then PhD at University College London, UK). 2016 – 2017
  - Konstantinos Karpouzas, AUTh/UCL (then PhD at U. of Groningen, NL). 2016 – 2017
- Invited lecturer:
  - Observational Astronomy, 2018/19 – 2023/24
    4^{th} year undergraduate course, Aristotle University of Thessaloniki
  - UKRI STFC Introductory Course in Astronomy. August 2019
  - ARES Summer school on HST data analysis, Biarritz, France. October 2019
- International Olympiad on Astronomy and Astrophysics (IOAA):
  - Trainer of the students selected to represent Greece at the IOAA 2010 – 2020
    on data analysis, observational astronomy, and theoretical astrophysics.
  - Invited scientific assistant for Greece: 11th IOAA, Phuket, Thailand. November 2017
  - Grader of the theoretical and data analysis tests: 7th IOAA, Volos, Greece. August 2013

Open-source algorithms and community platforms developed

- Iraclis (developer): Analysis pipeline for HST spectroscopic observations of transiting exoplanets.
- Wayne (developer): Simulation of WFC3 observations.
- PyLightcurve (developer): A python package for modeling and analysing transit light-curves.
- HOPS (developer): A software to analyse data from small ground-based telescopes.
- ExoTETHyS (contributor): An open-source package for modeling exoplanetary transits, eclipsing binaries and related phenomena.
- ExoClock Platform (developer): A citizen science platform that involves professional and amateur astronomers, with the aim of following-up transiting exoplanets with small telescope (+15000 visits per month).
- ExoWolrds Platform Spies (developer): An educational project aiming to bring schools, amateur astronomers and the general public exoplanet closer to exoplanet research (+20000 visits per month).

Citizen Science & Outreach

- Coordinator of the ExoClock project, a citizen science project that involves professional and amateur astronomers, aiming to following-up transiting exoplanets with small telescopes.
- Science manager of the ExoWorlds Spies project, an educational project aiming to bring schools, amateur astronomers and the general public exoplanet closer to exoplanet research.
- Co-coordinator of the ***Synergies with amateur astronomers*** working group of ARIEL consortium, ESA's M4 mission.
- Delivering astronomy lectures to high schools students at the Royal Observatory Greenwich.
- Developer of user friendly software, made for amateur astronomers and the general public.
- Several invitations for live discussions/interviews
  e.g. Hubble hangouts, BBC Sky at Night, Event horizon
- 15+ talks and workshops for the general public in Greece and the UK since 2009.

Languages

- Greek (native), English (proficient)

Computing

- Programming:
  - Python (excellent)
  - GUI development with Python/TkInter (excellent)
  - website development with Python/Django (excellent)
  - HTML (good)
  - R (good)
  - C (basic)
- Operating systems: Mac OS (excellent), Linux (excellent), Windows (excellent).
- Astronomical Software: MaxIm DL (excellent), The Sky X (good)
- Other: LaTeX (excellent), M. Office (excellent), Mathematica (excellent)