Dr Amir Hasanzadeh

Address: Centre for Fusion, Space and Astrophysics, Department of Physics, University of Warwick, Coventry
Mobile: +44 7404483935 **Email:** amir.hasanzadeh@warwick.ac.uk
Web: http://www.orcid.org/0000-0002-7286-1438
https://www.researchgate.net/profile/Amir-Hasanzadeh-3

Education

- **PhD in Astrophysics**: University of Zanjan, Iran (2016-2021)
  PhD Thesis: Asteroseismology of hybrid δ Scuti – γ Doradus pulsating stars [publications[1] No. 9, 16 - 19, 42]
- **M.Sc. in Astrophysics**: Tabriz University, Iran (2002-2004)
  Maser Thesis: Period changes and light curve analysis of eclipsing binary AB Andromedae [publications No. 1, 28, 29]
- **B.Sc. in Physics** : Sharif University of Technology, Iran (1997-2002) [publications No. 27, 28]

Professional Experience

- **Postdoctoral Research Associate:** Department of Physics, University of Warwick, UK (Sep 2023-ongoing)
  - Research and collaboration on data analysis techniques in helioseismology and asteroseismology, understanding the Solar activity cycle and the solar-stellar connection [publications No. 11 - 15, 21]
  - Supervise student projects on asteroseismology, stellar flares and exoplanets

- **Researcher:** Solar Physics and Astronomy section, Institute of Geophysics, University of Tehran, Iran (2005-2023)
  - Research on Celestial mechanics, Calendars, Photometry and analysis of variable stars [publications No. 2 - 8, 10 - 12, 20, 21]
  - Teaching courses on Physics, Astronomy and Astrophysics
  - Writing and editing books on topics of astronomy and astrophysics [publications No. 23-26]
  - Present the results on conferences and meetings [publications No. 31 - 41]
  - Scientific board of conferences and the referee of journals
  - Co-Supervise and advise of postgraduate and PhD thesis on variable stars, stellar physics, exoplanets, asteroseismology

- **Lecturer:** Research Institute for Astronomy & Astrophysics of Maragha, Iran (2014-2015)
  - Research on Photometry and Analysis of variable stars [publications No. 5, 6]

Thesis Supervision and Advisor

- **Photometry and period analysis of some eclipsing binaries and pulsating variable stars**
  University of Tehran, International Occultation Timing Association-Middle East section and Research Institute for Astronomy & Astrophysics of Maragha (2012-2017) [publications 3-7, 37, 38, 40, 43, 44]
- **Photometry and analysis of pulsating variable star V1644-Cyg**
  Shakiba, Fariba (MSc.), Department of Physics, University of Zanjan, Iran, 2019-2020 [publication 43]
- **Investigation of Transit method for a number of exoplanets by the TESS space mission data**
  Ebrahimi, Mohammad (MSc.), Department of Physics, Institute for Advanced Studies in Basic Sciences, Iran, 2022-2023

[1] Please see the list of publications

- **Asteroseismic and stellar flare analysis of some solar-like stars**
  Abbasvand, Salar (PhD student), Department of Physics, University of Zanjan, Iran, 2023-
- **Study of Stellar Flares in Host Stars of TESS habitable exoplanet Candidates**
  Wood, Hannah (Undergraduate student), Department of Physics, University of Warwick, UK, 2024-

Teaching

- **Astronomy**, Basic science school, Sharif University of Technology, Iran, 2001
- **Astrophysics**, Tehran Science and Astronomy Center, Tehran, Iran, 2006
- **Fundamentals of Physics,** Undergraduate courses, University of Tehran, 2007-2008
- **Astronomical Data analysis,** Summer Schools of Astronomy, 2012-2015
- **Modern Astrophysics**, Advanced course for Astronomy & Astrophysics Olympiad, 2008-2023
- **Asteroseismology,** Iranian National Observatory Workshop (Formation, evolution, and asteroseismology of stars), 2022.

Computing Skills

- Python, Matlab
- Data reduction & analysis package (IRAF, MaximDL, Period04, LightKurve, Eleanor)
- Modules for Experiments in Stellar Astrophysics (MESA)
- Codes on stellar algorithm and estimation (BASTA, PARAM)
- Stellar modelling and spectral synthesis (Special, MAGPy-RV, blase)
- Stellar oscillation codes (Gyre, PBjam, SMURFS)
- Eclipsing Binary Modelling Software (PHOEBE, Binary Maker)
- Exoplanet data analysis and modeling codes (Exoplanet, Starry)
- Solar Physics and stellar flares (Sunpy, AltaiPony, Stella)