# **Ioannis Koutalios**

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Education M.Sc., Astronomy and Data Science

Leiden University, (September, 2024)

B.Sc., Physics

Aristotle University of Thessaloniki, (November, 2020)

Publications Predicting binary neutron star postmerger spectra using artificial

neural networks

with Dr. Nikolaos Stergioulas and PhD candidate Dimitrios Pesios

September 2024

Research M.Sc. Thesis Project: Applying a cross-power model for power suppression

in FLAMINGO

supervised by Dr. Marcel van Daalen

September 2023 - June 2024

Reinforcement learning for adaptive optics and exoplanet imaging

supervised by PhD candidate Rico Landman, Dr. Thomas Moerland, and Dr. Aske Plaat

October 2023 - February 2024

M.Sc. Thesis Project: Finding the best exoplanets to search for exomoons

by radial velocity

supervised by Dr. Matthew Kenworthy

March 2022 - December 2022

B.Sc. Thesis Project: Spectral Classification of Neutron Star Post-Merger

**Gravitational Wave Emission** 

supervised by Dr. Nikolaos Stergioulas

Gravitational waves group, Physics Department, Aristotle University of Thessaloniki

September 2019 - September 2020

Conference 79th Dutch Astronomers' Conference

Presentations Poster Presentation, Applying a cross-power model for power suppression in FLAMNGO

Egmond aan Zee, The Netherlands, 13-15 May, 2024

Conferences 78th Dutch Astronomers' Conference

Attended Leeuwarden, The Netherlands, 15-17 May, 2023

Gravitational-Wave Open Data Workshop (#3 - #7)

Remote, May 2020, May 2021, May 2022, May 2023, April 2024

2<sup>nd</sup> g2net Training School

University of Malta, Valetta, Malta, 9-13 March, 2020

School on Neutron Star Physics in the Era of Gravitational Wave Astronomy

Eberhard Karls University of Tuebingen, Germany, 13-15 November, 2019

#### 14<sup>th</sup> Hellenic Astronomical Conference

Volos, Greece, 8-11 July, 2019

### 3<sup>rd</sup> HEL.A.S. Summer School and DAAD School on Neutron Stars and Gravitational Waves

Thessaloniki, Greece, 8-12 October, 2018

#### 17<sup>th</sup> Conference of the Hellenic Physical Society

Thessaloniki, 15-18 March, 2018

## Experience

Teaching Assistant in the Course of Reinforcement Learning (M.Sc.) Leiden University, 2024

Teaching Assistant in the Course of Science and the Public (M.Sc.)

Leiden University, 2023 - 2024

Teaching Assistant in the Course of Astronomy Lab and Observing Project (B.Sc.)

Leiden University, 2024

Private Tutor for Physics, Mathematics and Chemistry

2018 - 2024

Instructor for the Preparation of the Greek Team for the International Olympiad on Astronomy and Astrophysics

Summer 2016, Summer 2018, Summer 2019, Fall 2021, Summer 2022 Fall 2022, Summer 2023

Grading Assistant in the Course of Astronomy and Astrophysics

Aristotle University of Thessaloniki, 2018-2020

Public Outreach Guide at the Astronomical Observatory of the Aristotle University of Thessaloniki

2018-2021

Distinctions Scholarship from Cosmote for undergraduate studies

Greece, 2015-2019

Honorable Mention, International Olympiad on Astronomy and Astrophysics

Indonesia, 2015

Participation, International Olympiad on Astronomy and Astrophysics

Romania, 2014

# Computer Skills

Experties: Python, Jupyter, Git (Github & Gitlab) Linux OS, LATEX, VS Code

Familiar: SQL, C, Mathematica, Matlab

Machine and Deep Learning: PyTorch, Tensorflow, Keras, Scikit-learn, Jax Data Science and Mining: Pandas, Numpy, Matplotlib, Seaborn, Scipy, Nbodykit

I.T. Skills: Bash, SSH, Anaconda, JupyterHub

github/gitlab link: https://github.com/johnkou97, https://gitlab.com/johnkou97

#### Languages

English (C2), German (B1), Greek (native speaker), Dutch (beginner)