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 Dr. 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 Presentations

BNAIC/BeNeLearn 2024: Joint International Scientific Conferences on AI
Poster Presentation, Reinforcement learning for adaptive optics and exoplanet imaging
Utrecht, The Netherlands, 18-20 November, 2024

79th Dutch Astronomers' Conference
Poster Presentation, Applying a cross-power model for power suppression in FLAMNGO
Egmond aan Zee, The Netherlands, 13-15 May, 2024

Conferences Attended

78th Dutch Astronomers' Conference
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

2nd **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

14th **Hellenic Astronomical Conference**
Volos, Greece, 8-11 July, 2019

3rd **HEL.A.S. Summer School and DAAD School on Neutron Stars and Gravitational Waves**
Thessaloniki, Greece, 8-12 October, 2018

17th **Conference of the Hellenic Physical Society**
Thessaloniki, 15-18 March, 2018

Experience	**Teaching Assistant for the Course "Reinforcement Learning" (M.Sc.)** Leiden University, 2024 **Teaching Assistant for the Course "Science and the Public" (M.Sc.)** Leiden University, 2023 - 2024 **Teaching Assistant for the Course "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 for the Course "Astronomy and Astrophysics"** Aristotle University of Thessaloniki, 2018-2020
Volunteer	**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 **International Olympiad on Astronomy and Astrophysics** **Honorable Mention**, Indonesia, 2015 **Participation**, 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)