Atanas K. Stefanov

Résumé

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Education

11/2023 – present EQF8	**PhD Astrophysics**, *Universidad de La Laguna*, La Laguna, IC Stellar magnetic activity and rocky planets in cool dwarf stars with NIRPS.
09/2019 – 06/2023 EQF7	**MSci Astrophysics**, *University College London*, London, UK Main modules: Physics of Stars, Physics of Exoplanets, Astronomical Spectroscopy, Quantum Physics. Mathematical Methods, Theory of Dynamical Systems, Techniques of High-Performance Computing.
09/2014 – 06/2019 EQF4	**System Programming**, *MHS "Acad. Kiril Popov"*, Plovdiv, BG A professional qualification obtained alongside secondary education. Main modules: Electronics, Object-Oriented Programming, Web Development, Database Management.
09/2014 – 05/2019 EQF4	**Secondary Education**, *MHS "Acad. Kiril Popov"*, Plovdiv, BG Main modules: Mathematics, Natural Sciences, Bulgarian, English, Russian.

Experience

11/2023 – present	**Graduate Student Researcher**, *Instituto de Astrofísica de Canarias*, La Laguna, IC Analysis of stellar activity and potential exoplanetary signals in the spectra of cool dwarf stars. Associated with PhD Astrophysics, Universidad de La Laguna.
12/2022 – 03/2023	**Research & Development Associate**, *Synaptic*, Sofia, BG Technical documentation and consultancy work in the field of natural sciences and information technologies. Engaged with the data visualisation and documentation of a prototype device in the area of rehabilitation and well-being, using Python and LaTeX.
06/2021 – 08/2021	**Research Intern**, *University College London*, London, UK A Brian Duff studentship award by the UCL Astrophysics group, with topic "Exploration of exoplanet transits around gravity-darkened stars". Documented the use of TESS data products and the Python packages Lightkurve and eleanor. Worked with exoBush, a Fortran-based spectroscopic and photometric simulation tool described in Howarth & Smith (2001). Developed PEPPER, a Python wrapper that: (1) rapidly executes exoBush across a parameter space, (2) provides low-level tools for working with exoBush inputs/outputs, (3) provides affine-invariant Markov chain Monte Carlo fitting through emcee.
10/2018 – 03/2019 10/2017 – 03/2018	**Web Development Intern**, *Viscomp Ltd.*, Plovdiv, BG Two part-time internships, each over a span of six months. Collaborated on a prototype web-based grade-book for a local university. Worked primarily on back-end development using PHP and MySQL.

Programming, markup and observing

Current rotation		Prior experience		Observing	
LaTeX	*8 yr*	C++, SQL, PHP	*4 yr*	TNG 3.6m	*11 n*
Python	*6 yr*	CSS, JS, Wolfram	*2 yr*	ESO 3.6m	*8 n*
		Go	*1 yr*	Rozhen 2m	*4 n*

Awards

07/2023	Doctoral INPhINIT Fellowship	*"la Caixa" Foundation*
06/2021	Brian Duff Award	*University College London*
09/2018	Joint Research Centre Award	*European Union Contest for Young Scientists*

Selected publications

Stefanov, A. K. et al. A super-Earth in the habitable zone of the GJ 3998 multi-planet system. *A&A*, 695:A62, 2025.

Stefanov, A. K. et al. A sub-Earth-mass planet orbiting Barnard's star: No evidence of transits in TESS photometry. *A&A*, 693:L3, January 2025.

González Hernández, J. I. et al. A sub-Earth-mass planet orbiting Barnard's star. *A&A*, 690:A79, October 2024.