

# Atanas K. Stefanov

## Résumé

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## Education

- 11/2023 – present **PhD Astrophysics**, *Universidad de La Laguna*, La Laguna, IC  
EQF8 Stellar magnetic activity and rocky planets in cool dwarf stars with NIRPS.
- 09/2019 – 06/2023 **MSci Astrophysics**, *University College London*, London, UK  
EQF7 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 **System Programming**, *MHS "Acad. Kiril Popov"*, Plovdiv, BG  
EQF4 A professional qualification obtained alongside secondary education.  
Main modules: Electronics, Object-Oriented Programming, Web Development, Database Management.
- 09/2014 – 05/2019 **Secondary Education**, *MHS "Acad. Kiril Popov"*, Plovdiv, BG  
EQF4 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 **Web Development Intern**, *Viscomp Ltd.*, Plovdiv, BG
- 10/2017 – 03/2018 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.

## Awards

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

## Programming and markup

### Currently using

$\LaTeX$  7 years  
Python 5 years

### Prior experience

C++, PHP, SQL 4 years  
CSS, JS, Wolfram 2 years  
Go 1 year

## Research work

S. Y. Stefanov and [A. K. Stefanov](#). Tilted discs in six poorly studied cataclysmic variables. *Monthly Notices of the Royal Astronomical Society*, 520(3):3355–3367, April 2023.