Dušan Vukadinović

— resume —

Universitätplatz 5, 8010, Graz, Austria
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https://orcid.org/0000-0003-1971-5551
https://github.com/dvukadinovic

Education and Employment

Institute for Physics, University of Graz — Graz, Austria
postdoctoral researcher — April 2025 - present

Max Planck Institute for Solar System Research — Göttingen, Germany
postdoctoral researcher — February 2024 - March 2025

Max Planck Institute for Solar System Research — Göttingen, Germany
doctoral studies — November 2019 - January 2024

- part of the Max Planck International Research School for Solar System Science at the University of Göttingen
- thesis title: "Inferring atomic line parameters from solar spectra"
- advisors: Andreas Korpi-Lagg, Smitha Narayanamurthy, Michiel van Noort, Sami Solanki

Faculty of Mathematics, University of Belgrade — Belgrade, Serbia
MSc in astronomy and astrophysics — October 2017 - September 2018

- thesis title: "Formation and polarization in Mg I b line in the solar spectrum"
- advisors: Ivan Milić, Olga Atanacković

Faculty of Mathematics, University of Belgrade — Belgrade, Serbia
BSc in astronomy and astrophysics — October 2013 - September 2017

Publications

Vukadinović D., Smitha H. N., Korpi-Lagg A., van Noort M., Castellanos Durán J. S., Solanki S. K., `globin`: *A spectropolarimetric inversion code for the coupled inference of atomic line parameters*, 2024. A&A, **686**, A262
https://ui.adsabs.harvard.edu/abs/2024A%26A...686A.262V/abstract

Vukadinović D., Milić I., Atanacković O., *Magnetic field inference from the spectral region around the Mg I b_2 line using the weak-field approximation*, 2022. A&A, **664**, A182
https://ui.adsabs.harvard.edu/abs/2022A%26A...664A.182V/abstract

Research interests

radiative transfer of polarised light
non-LTE spectral line modelling
spectropolarimetric inversions
atomic physics
numerical optimisation

Other relevant experience

Faculty of Mathematics, University of Belgrade — Belgrade, Serbia
teaching assistant — October 2017 - October 2019

- courses: Theory of Stellar Spectra, Instruments and Techniques of Astrophysical Observations, and Astrophysical Observations

Petnica Science Center — Valjevo, Serbia
head of the Department of Astronomy — December 2016 - October 2019

Max Plank Institute for Solar System Research — Göttingen, Germany
student internship — July - August 2016

- inferring photospheric magnetic field from the infrared iron lines at 1.56 μm using only Stokes I profiles
- advisor: Smitha Narayanamurthy

Petnica Science Center — Valjevo, Serbia
teaching assistant at the Department of Astronomy — February 2014 - present

Scientific presentations

Second NLTE inversion workshop — Porto, Portugal
4th - 6th of September 2023

SOLARNET conference — Potstdam, Germany
8th - 12th of May 2023

Colloquium of the National Astronomical Observatory of Japan — virtual attendance
16th of September 2022

First NLTE inversion workshop — Stockholm, Sweden
16th - 18th of December 2019

Conferences and schools

European Solar Physics Meeting — Turin, Italy
poster presentation — 9th - 13th September 2024

Hinode-15/IRIS-12 conference — Prague, Czech Republic
poster presentation — 19th - 23rd of September 2022

Summer School in Spectropolarimetry — Boulder, USA
22nd of August - 2nd of September 2022

European Solar Physics Meeting — online
poster presentation — 6th - 10th September 2021

Annual Meeting of the German Astronomical Society — online
poster presentation — 21st - 25th of September 2020

XXXI Canary Islands Winter School of Astrophysics — Tenerife, Spain
Computational fluid dynamics in astrophysics — 19th - 28th of November 2019

Computer skills

Basic knowledge: C/C++, Cython, git, IDL, MatLab, Wolfram Mathematica
Intermediate knowledge: Python3
Scientific Software: LaTeX, Maxim Dl

Last update: 11th of April 2025.