## IN MEMORIAM: DARKO JEVREMOVIĆ (1968–2024)

D. Ilić<sup>1</sup> and L. Č. Popović<sup>2,1</sup>

<sup>1</sup>Department of Astronomy, Faculty of Mathematics, University of Belgrade Studentski trg 16, 11000 Belgrade, Serbia

E-mail: dragana.ilic@matf.bg.ac.rs

<sup>2</sup> Astronomical Observatory, Volgina 7, 11060 Belgrade 38, Serbia E-mail: lpopovic@aob.rs

(Received: November 15, 2024; Accepted: November 30, 2024)

SUMMARY: This *In Memoriam* commemorates the life and scientific contributions of Dr. Darko Jevremović, a distinguished astronomer and scientist who made significant advancements in astrophysics, stellar spectroscopy, and astroinformatics.



Fig. 1: Dr. Darko Jevremović (1968–2024).

Dr. Darko Jevremović was born on May 16, 1968, in Zagreb. He completed part of his elementary education in Osijek and continued in Slavonska Požega, where he graduated from a high school specializing in mathematics and informatics in 1986. He then pursued studies in astronomy and astrophysics at the

University of Belgrade - Faculty of Mathematics, earning in 1991 a degree in astrophysics from the Department of Astronomy of the Faculty of Mathematics. He received the *Prof. Zaharije Brkić* award as the best graduate student of the 1991/1992 academic year. In 1994, he earned his master's degree from the same Faculty of Mathematics, focusing on UV spectroscopy of the red giant  $\mu$  Cephei. He completed his PhD in 2000 at the Department of Pure and Applied Physics, Queen's University of Belfast (Northern Ireland, UK) for research carried out at Armagh Observatory, specializing in stellar spectroscopy and stellar atmospheres (Jevremović et al. 2000). The PhD thesis entitled "Hydrogen Balmer lines in stellar flares" was defended in November 1999.

After completing his studies, Dr. Jevremović launched his career at Petnica Science Center, leading programs in physics and astronomy. In 1994, he joined the Astronomical Observatory in Belgrade (AOB), where he achieved the esteemed rank of Research Professor in 2016. Throughout his career, he undertook several postdoctoral appointments, including at the Armagh Observatory, the Queen's University of Belfast, the University of Oklahoma, and the Royal Observatory of Belgium.

Dr. Jevremović made significant contributions to the fields of stellar physics and spectroscopy, particu-

larly in radiative transfer modeling and stellar atmosphere simulations using the PHOENIX photoionization code. His pioneering work in astroinformatics led to the establishment of the Serbian Virtual Observatory (SerVO)<sup>1</sup> in 2008, as well as the possibility to join the organization of The Virtual Atomic and Molecular Data Centre (VAMDC, Dubernet et al. 2016). His visionary interests in big data and survey astronomy brought him to coordinate Serbia's inclusion in the Legacy Survey in Space and Time (LSST) project of the Vera C. Rubin Observatory (Ivezić et al. 2019)<sup>2</sup> as early as 2011, where his primary focus was on developing alert-streaming procedures through the advancements of AlertSim. He was the principal investigator of two projects funded by the Ministry of Science and Technological Development of the Republic of Serbia in the period 2008 to 2021, mainly dedicated to astroinformatics and applications of informatics in astronomy and related fields, such as geoscience. He led several initiatives to establish high performance computing (HPC) facilities at AOB. Since 2022 he has been the coordinator of the Astroinformatics group at AOB.

During his scientific career, Dr. Jevremović published 78 scientific papers, which were cited more than 6,000 times, with this number increasing on a weekly basis (source NASA ADS). Notable among his contributions are his advances in stellar atmosphere modeling with the PHOENIX code, which has been widely cited and utilized in astrophysical research (Dotter et al. 2008). His work on astroinformatics and the SerVO (Jevremović et al. 2009) laid the foundation for innovative data analysis techniques for big data astronomy, with applications that extend beyond astronomy to broader domains of data science. His most cited papers include groundbreaking research on stellar radiative transfer and computational astrophysics.

Dr. Jevremović was one of the lecturer within the European Erasmus Mundus Joint Master Program in Astrophysics - Astromundus<sup>3</sup> from 2011 to 2020, hel-

ping educate students from all over the world in stellar atmospheres, numerical simulations, and astroinformatics. He strongly supported the creation of international scientific networks and joint research collaborations, to which he gave notable contributions through participation in management committees of several European Cooperation in Science and Technology (COST) actions, as well as the organization of many scientific meetings and workshops, such as the Serbian Conference on Spectral Line Shapes (SC-SLSA). He initiated the establishment of the conference series dedicated to the LSST project, the well-known LSST@Europe conference series. He was the member of the International Astronomical Union, European Astronomical Society, and the Society of Astronomers of Serbia.

In 2023, he was the most-cited scientist at the Astronomical Observatory in Belgrade. For his dedication to astronomy and research, he received the Observatory's awards for young researchers in 2001 and for senior researchers in 2008.

Dr. Jevremović passed away unexpectedly on July 11, 2024, in Supetar, Brač, Croatia, at the age of 56. His legacy in science and innovation in computational astrophysics will remain an enduring inspiration to the astronomical community.

## REFERENCES

Dotter, A., Chaboyer, B., Jevremović, D., et al. 2008, ApJS, 178, 89

Dubernet, M. L., Antony, B. K., Ba, Y. A., et al. 2016, Journal of Physics B Atomic Molecular Physics, 49, 074003

Ivezić, Ž., Kahn, S. M., Tyson, J. A., et al. 2019, ApJ, 873, 111

Jevremović, D., Doyle, J. G. and Short, C. I. 2000, A&A, 358, 575

Jevremović, D., Dimitrijević, M. S., Popović, L. Č., et al. 2009, NewAR, 53, 222

## У СЕЋАЊЕ НА ДР ДАРКА ЈЕВРЕМОВИЋА (1968–2024)

У овом *In Memoriam* одајемо почаст животу и научним доприносима др. Дарка Јевремовића, истакнутог астронома и научника који је

остварио значајне резултате у астрофизици, спектроскопији звезда и астроинформатици.

<sup>1</sup>http://servo.aob.rs/

 $<sup>^2 \</sup>verb|https://rubinobservatory.org/|$ 

<sup>3</sup>https://www.uibk.ac.at/astromundus/