

IN MEMORIAM TO PROF. JELENA MILOGRADOV-TURIN

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Abstract. The brief review of the scientific, educational and professional activities of Prof. dr Jelena Milogradov-Turin is presented.

1. BRIEF BIOGRAPHY

Jelena Milogradov was born in Belgrade to a family of Russian immigrants on 28 January 1935. She completed her primary and secondary education in Belgrade and after that enrolled at the Faculty of Sciences and Mathematics - Physics Group, from which she graduated in 1959. Jelena Milogradov - Turin defended her MSc thesis in 1972 at the University of Manchester, England. She obtained her PhD degree at the University of Belgrade in 1982.

From 1960, she was employed as a teaching assistant at the Department of Mechanics and Astronomy - Faculty of Sciences and Mathematics (Department of Astronomy at the presentday Faculty of Mathematics). She worked 42 years at the same Department. She was retired in 2002, as a Full Professor, from the Department of Astronomy, Faculty of Mathematics.

Prof. dr Jelena Milogradov-Turin passed away suddenly on 2 February 2011, leaving the scientific community with a great sense of loss.

2. SCIENTIFIC ACTIVITY

In the first half of 1960s Jelena Milogradov-Turin collaborated with first Serbian radio astronomer, prof. dr Ivan Atanasijević (PhD in 1956, in the field of radio astronomy). She went to postgraduate studies in England in 1966. She received a scholarships – that of the University of Manchester, England, 1966-1968. Prof. Atanasijević leaved Yugoslavia and went to Netherland in 1967. Jelena Milogradov-Turin worked at the Observatory Jodrell Bank, University of Manchester and for scientific work used Telescope Mark I, with diameter of 76 m, which is in function from 1957 until presentdays. In this moment this telescope is third (in its side) moveable radio telescope in the world. In time of its construction it was the biggest telescope in the world. In time when prof. Milogradov-Turin used it, it was second. Jelena Milogradov-Turin defended her MSc degree in 1972 from the University of Manchester, England, with a thesis entitled "The Survey of the Region $6^h < \alpha <$

19^h, $-25^\circ \leq \delta \leq 70^\circ$ at 38 MHz ". This work was based on her own results of observations made with Mark I telescope. Her supervisor was a fellow of the Royal Society, Sir Francis Graham-Smith, director of the Jodrell Bank observatory, later on appointed the 13th Astronomer Royal. The collaborators of Jelena Milogradov-Turin were world famous radio astronomers such as G. Haslam, C. Salter, E. Berkhuijsen. She defended her PhD thesis "The All Sky Survey at 38 MHz and the Galactic Spectral Index" in the field of astronomical/astrophysical sciences, at the University of Belgrade in 1982. The most important results of her PhD thesis are: distribution of the spectral index across the radio sky, quasi radio-halo - North Polar Spur or Loop I, analysis of the differential spectral indices, and more and more contributions... Her PhD thesis has approximately 500 pages. She published three papers in prestige journal "Monthly Notices of the Royal astronomical Society" directly connected with results from MSc and PhD theses (Milogradov-Turin 1972, Milogradov-Turin and Smith 1973, Milogradov-Turin 1984). She is first Serbian astronomer who defended MSc and PhD thesis in field of radio astronomy. Additionally, she published a great number of scientific papers in national and international journals, and participated in many conferences at home and abroad. There are 61 bibliographic entries for Jelena Milogradov-Turin in the Astrophysics Data System (ADS) and 17 in the Web of Science (WoS). From 1971 to end of 2011 she was cited in WoS 88 times.

Prof. Milogradov-Turins results are scientifically significant - her survey at 38 MHz and interpretation of Galactic spectral indices are at the level of the highest results in the history of radio astronomy.

She was member IAU, commission for radio-astronomy, and Serbian representative in the IAU commission for astronomy education. She was a member of the European Astronomical Society, as well as a member of National Committee for Astronomy.

In last thirty years she was deeply occupied by the history and philosophy of astronomy and science at all. She published a great number of papers in this field of science with significant results.

3. EDUCATIONAL ACTIVITY

At the University of Belgrade Jelena Milogradov-Turin worked as a teaching assistant for next courses: General Astrophysics, Practical Astrophysics, Fundamentals of Stellar Astronomy, Theoretical Astrophysics, Astronomy Teaching Practicum, Radio Astronomy and Mathematics I. She held consultations in Fundamentals of Stellar Astronomy and Practical Astrophysics. The courses she taught included Radio Astronomy, History and Teaching Methods in Astronomy, and Fundamentals of Astrophysics. She co-authored with Ivan Atanasijević lecture notes "Selected Chapters of Stellar Astronomy" (1964, 1974) and with Dejan Urošević a textbook "Theoretical Fundamentals of Radio Astronomy" (2007). She was the supervisor of one PhD and three MSc theses. She introduced course Radio-astronomy in 1983/1984 school year. Now, it is compulsory course at fourth year of undergraduate studies of Astrophysics at the Faculty of Mathematics.



Figure 1: Prof. dr Jelena Milogradov-Turin as chairperson at one of many Conference which she attended.

4. PROFESSIONAL ACTIVITY

Jelena Milogradov-Turin was tremendously active in the popularization of astronomy. It would be difficult to count all the popular lectures she gave at Ilija M. Kolarac Foundation, Petnica Science Centre, schools, seminars, radio and TV, which is why she received numerous awards in recognition of her outstanding efforts to promote and popularize astronomy.

She discharged a number of functions over the years. She was Head of the Public Observatory and Planetarium in Belgrade, President of the Society of Astronomers of Serbia, President of the National Astronomy Olympic Committee and President of the Astronomical Society "Rudjer Bošković". While changing positions (member, assistant editor, editor-in-chief), she served on the editorial boards of two magazines – *Vasiona* and *Mladi fizičar*.

She had amazing energy, she was always ready to work and think, also always interested for the scientific brainstorming. It was great honor, pleasure and happiness to be her student, collaborator and colleague.

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