

## **IN MEMORIAM RODICA ROMAN (1955 - 2014)**

Dr. Rodica Roman was born on the 18<sup>th</sup> April, 1955 in Cluj-Napoca as singleton into the family of a romanian astronomical researcher (Ioan Todoran) and a mathematics teacher (Rodica Todoran). She was educated in Cluj-Napoca and get two bachelor's: Bachelor of Engineering (1980) and Bachelor of Mathematics (1997). She received a Master of Science in Astro- and Hydrodynamics in 1998 from the Babeş-Bolyai University and a Doctor of Science in Mathematics from the same university in 2002. Rodica Roman's Ph.D. thesis dealt with the study of the Roche model of double stars. In 2002 she was a member of the Biermann's Theoretical Research Group at the *Max Plank Institut für Radioastronomie*, who studied cosmic rays and magnetic fields. She has participated in many scientific national and international conferences.

Dr. Rodica Roman as a child was already in connection with the Astronomical Observatory of Cluj-Napoca, where his father was researcher and they lived close to the Observatory. She worked as engineer at the IEIA – Electrosigma Company for twelve years. In 1992, she came as a laboratory assistant in the Mechanics and Astronomy Department of the Faculty of Mathematics and Computer Science at Babeş-Bolyai University. Between 1998 - 2002 she was a PhD student at the same department in astronomical specialization (scientific leader and supervisor: Prof. dr. Vasile Ureche). Starting December 1, 2002 until 2014 she served as senior researcher III in the team of researchers at the Astronomical Observatory Cluj-Napoca.

She was working as scientific researcher at two projects at the Astronomical Institute of Romanian Academy: the project I.2. *Stellar astrophysics and planetary systems*, where she studied the Roche geometry and the equations of motion in close binaries; and the project II.2. *Celestial mechanics*, where she investigated quantitative and qualitative the restricted three-body problem to understanding of the behavior of dynamical systems.

She was an active member at the following affiliations: the International Astronomical Union at the Fundamental Astronomy and Commission 7 (Celestial Mechanics & Dynamical Astronomy), the Romanian National Committee for Astronomy, and the European Astronomical Society. Dr. Rodica Roman is the author of a book entitled *Roche models at double stars* and around 50 scientific papers, including ISI articles, mostly in the areas of celestial mechanics, dynamical systems, astrophysics.

She was an expert in different part of applied mathematics and celestial mechanics. During the last few years, Dr. Rodica Roman have been introduce the definition of *similar coordinate's system* in celestial mechanics area, and she applied

successfully with regularization.

Simultaneously with her scientific activities, Dr. Rodica Roman participates in training mathematics at different levels, she graduated Qi Gong and Reiki practice.

Always kindly, helpfully and gently, she encouraged her colleagues to work together as a group, Rodica Roman dedicated her professional life to mathematics, astrophysics and celestial mechanics.

Rest in peace!