



UNIVERSITY
OF WARSAW

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DR. PRZEMYSŁAW MRÓZ AWARDED THE INTERNATIONAL ASTRONOMICAL UNION 2019 PHD PRIZE

Dr. Przemysław Mróz has been awarded the International Astronomical Union PhD Prize for outstanding scientific achievements of astronomy PhD students around the world for his dissertation “Astrophysical applications of gravitational microlensing in the Milky Way”. The thesis was written under the supervision of Professor Andrzej Udalski from the Astronomical Observatory of the University of Warsaw.

The PhD thesis of Dr. Mróz presents the results of two major pioneering scientific projects. In the first part of this thesis, he focused on searching for and constraining the frequency and nature of rogue (free-floating) planets in the Milky Way. In the second part of his thesis, Dr. Mróz created the largest and the most accurate microlensing optical depth and event rate maps of the Galactic bulge. Both studies were based on long-term photometric observations of the Galactic center conducted as part of the OGLE (Optical Gravitational Lensing Experiment) sky survey.

Dr. Mróz demonstrated, among other results, that Jupiter-mass free-floating planets are much less common than previously claimed. He also discovered a few ultra-short gravitational microlensing events that are likely caused by Earth- and super-Earth-mass rogue planets, the existence of which was predicted by the planet formation theories. The findings presented in the thesis were published in four papers in the most prestigious peer-reviewed journals (including Nature), which made a significant impact on the astronomical community. They have been cited over 150 times as of now.

Dr. Przemysław Mróz is currently a postdoctoral scholar at the California Institute of Technology.

The International Astronomical Union PhD Prize recognizes outstanding scientific achievement in astrophysics around the world. The Prize has been awarded since 2016. The Prize Certificates will be awarded during the next International Astronomical Union General Assembly in Busan, South Korea in 2021.

[More information about the Prize and its recipients >>](#)