

Photometrical observations and time transit variations (TTV) researches of extrasolar planets

The Laboratory of Observational Astrometry of the Central (Pulkovo) Observatory of RAS makes regular observations of transit exoplanets, that have any features, such as Time Transit Variations (TTV), Transit Duration Variations (TDV), transit depth variations, transit inclination variations and wrong firstly determination of planet radius and planet orbital period. The observations are carried out with MTM-500M telescope, placed on Mount Astronomical Station of Pulkovo observatory (Northern Caucasus); ZA-320M mirror astrograph, 26-inch refractor, Meade LX-200, MTM-200, Celestron Advanced C8-SGT, placed in Pulkovo observatory; AZT-24, placed in Campo Imperatore observatory (Italy); **Mobile Astronomical System of TElescope-Robots (Master-II)**, placed in Ural (Kourovka) and Tunka; 20-inch Planewave CDK, placed in New Mexico (USA) and 305mm Riccardi-Honders astrograph, placed in Greece.

Based on observation data, investigations of several exoplanets and its features were made. This work allowed to clarify some of the physical and orbital parameters, as well as to make the assumption of the existence of other planets in the investigated planetary systems for some extrasolar planets.