

Discovery of Qatar 6-b Exoplanet

Al-Rajhi, Amani

Al-Harbi, Abeer

Abstract : We present the discovery of the Qatar-6b exoplanet as a result from the Qatar Exoplanet Survey (QES). Qatar-6b exoplanet is a hot Jupiter – a very large gas planet, very close to its host star. The orbital period of the planet is $P = 3.5058$ days and the planetary radius and mass is $R_p = 1.35 R_J$ and $M_p = 0.76 M_J$ respectively. The host star physical parameters are $R_{\text{star}} = 0.87 R_{\text{sun}}$ and $M_{\text{star}} = 0.84 M_{\text{sun}}$. We confirm this important discovery, by using data from QES, for 0.5m Qatar Follow-up Telescope (New Mexico USA) and 1.2 FLWO telescope at Mt. Hopkins observatory (USA).