Contribution ID: **62** Type: **Poster**

A Frequencies Shift in Relativistic Binary System (Theoretical Study)

Monday 7 December 2015 18:35 (3 minutes)

A generalized formula for Kermack, McCrea and Whittaker (KMW), has been derived by the author and et al., to study the limb effect of rapidly rotating stars. In this work a modified Curzon exact solution for Einstein's field equations has been used to study the variation in the frequencies of signals' carriers from a relativistic binary system. The primary star is assumed to be massive with respect to the secondary one. The center of mass is considered to be coincident to the center of rotating polar coordinate system. The rotation of the secondary star around the primary star and Earth's observer rotates with the Earth are considered in our calculation. A general theoretical formula for the variation in the frequencies of the signals' carriers from a binary system is obtained

Author: Prof. MORCOS, Abd El Fady (Emeritus Prof. of Relativistic Astrophysics and Cosmology)

Presenter: Prof. MORCOS, Abd El Fady (Emeritus Prof. of Relativistic Astrophysics and Cosmology)

Session Classification: 15 - Binaries