Contribution ID : **627** Type : **Poster**

GRAVITATIONAL SCALE FACTOR AND QUANTUM GRAVITATIONAL EFFECT IN LUMINOSITIES OF COMPONENTS OF DETACHED DOUBLE-LINED ECLIPSING SYSTEMS (DDLES)

Monday, 5 October 2020 19:45 (15)

It is found that the gravitational scale factor $({}_1/{}_2)$ can act in the luminosity (L) of the DDLES component. is the mass of the DDLES component. For any DDLES indexes (1) and (2) indicate its first and second components, respectively. Namely, $L_1 = \eta^*{}_{(1)} {M_1}^4 ({}_1/{}_2)^{1/2}$ and $L_2 = \eta^*{}_{(2)} {M_2}^4 / ({}_1/{}_2)^{1/2}$, where ${}_1/{}_2 \geq 1$ and η^* is the reduced luminosity of the DDLES component in the absence of the action of the gravitational scale factor. It is found that the distribution of the DDLESes along the coordinate axis $\log(\eta^*{}_{(1)}/\eta^*{}_{(2)})$ has four most probable values, which are defined by the step of 0.050. It follows that in each of these DDLESes there is some quantum physical system which creates the quantum gravitational effect along this axis. A general gravitational mass of any such DDLES is proposed as this quantum physical system.This gravitational mass is also the measuring instrument of ${}_1$ and ${}_2$.

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Session Classification : Poster session

Track Classification : Gravitation and cosmology