

$$(8) \quad \frac{dt}{dt_0} = \frac{1}{\sqrt{1 - \frac{v^2}{c^2}}}$$

*Dedicated to Costică MUSTĂŢA on his 60<sup>th</sup> anniversary*

The paper approaches the modification a relativity metrics of spherical symmetry generated by a body of mass  $m_1$  due to a for off spherical deals with the translation of the reference frame  $O'x'y'z'$  with the origin in  $m_2$  is done in the reference frame  $Oxyz$  with the origin in  $m_1$ .

The body of mass  $m_1$  is located at the origin of the reference frame  $Oxyz$  and the body of mass  $m_2$  is located at the origin of the reference frame  $O'x'y'z'$ .

### SCHWARZSCHILD'S METRIC GENERATED BY A BODY WITH MASS $m_1$ PERTURBED BY A BODY WITH MASS $m_2$ FROM A FIXED DISTANCE

$$(9) \quad ds^2 = -c^2 dt^2 + \frac{dr^2}{1 - \frac{2Gm_1}{rc^2}} + r^2 d\Omega^2$$

The length unit is both centimeter and meter. The time unit is both second and minute. A point  $M$  from the space-time is denoted by  $(t, r, \theta, \phi)$ .

The origin  $O$  of the reference frame  $Oxyz$  is at the center of the body of mass  $m_1$  and the origin  $O'$  of the reference frame  $O'x'y'z'$  is at the center of the body of mass  $m_2$ .

The stringht line  $OO'$  being the support of the axes  $O'x'$  and  $Ox$ . In the present case, distance  $OO' = a$  is considered constant in time.

**Abstract.** This paper approaches the modification a relativity metrics of spherical symmetry generated by a body of mass  $m_1$  due to a for off spherical deals with the translation of the reference frame  $O'x'y'z'$  with the origin in  $m_2$  is done in the reference frame  $Oxyz$  with the origin in  $m_1$ .

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