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The theoretical study of ruptured space in ergo sphere of a black hole and warming zone

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Abstract

In ergo sphere of a black hole space is ruptured due to accumulation of heavy mass before singularity. The black hole takes mass and mass to energy formation occurs in warming zone and energy to mass formation occurs and the mass is released by another black hole to other universe. The warming zone is composed of high energy and elliptical in shape. In ergo sphere E/m tends to 0 and in the warming zone E/m tends to ∞.

In ergo sphere to event horizon or beyond singularity the valid relationship between metric tensor, Riemannian tensor and Lagrangian stress energy tensor is

$\int d^4 x \sqrt{-g}\, [(R_{\sigma p q}{}^{\rho} - R_{\sigma r s}{}^{\rho}) - 2\Lambda + (\rho_q{}^{p} - \rho_s{}^{r})] = 0.$

In warming zone the relationship would be $1/(\int d^4 x \sqrt{-g}\, [(R_{\sigma p q}{}^{\rho} - R_{\sigma r s}{}^{\rho}) - 2\Lambda + (\rho_q{}^{p} - \rho_s{}^{r})]) = 0$

Keywords: Black hole; Ergo sphere; Warming zone

1. Introduction

In black hole; the man accumulates in event horizon. The man accumulation becomes so much that enhance the gravitational spacetime distortion. The accumulation of much man makes ergo sphere to tear the space. The accelerated disk represents the spine of space tear. Before reaching the singularity the enormous accumulation of man ruptures the space in the ergo sphere. In the ruptured space the E/m ratio becomes near about 0. The action due to gravity and man becomes zero. After that zone energy accumulates as more energy of the warm zone produced by man. Warm zone is elliptical in nature, form the warm zone again man is formed and black hole from other universe where man exits from that black hole.

2. Methodology

It is analysed by using einstein field equation. Two metric tensor is created $g_{lw}+$ and $g_{lw}-$ and after rupture boundary is considered smooth. Riemannian tenson is computed for two different smooth boundary matric tensors R and R. then the total action is considered zero as the E/m ratio becomes near about 0 at preliminary stage of man togetherness. Then when energy is formed from man E/m- ∞ [m - 0; E - ∞]. More energy production makes space elliptical.

3. Result and discussion

The metric tensor in the ruptured space at the boundary is $g_{\mu\upsilon}+$ and $g_{\mu\upsilon}-$ is considered respectively. The $g_{\mu\upsilon}+$ is regarded as g_{pq} and $g_{\mu\upsilon}-$ is regarded as g_{rs}.

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$g_{\mu\upsilon} + = g_{pq}$

$g_{\mu\upsilon} - = g_{rs}$

$\Gamma_{pq}{}^{\sigma} = 1/2\, g^{\sigma\rho} (\partial_q g_{\rho q} + \partial_p g_{\rho q} - \partial_\rho g_{pq})$

$\Gamma_{rs}{}^{\sigma} = 1/2\, g^{\sigma\rho} (\partial_s g_{\rho r} + \partial_r g_{\rho s} - \partial_\rho g_{rs})$

$R_{\sigma pq}{}^{\rho} = \partial_p \Gamma_{q\sigma}{}^{\rho} - \partial_q \Gamma_{p\sigma}{}^{\rho} + \Gamma_{p\lambda}{}^{\rho} \Gamma_{q\sigma}{}^{\lambda} - \Gamma_{q\lambda}{}^{\rho} \Gamma_{p\sigma}{}^{\lambda}$

$R_{\sigma rs}{}^{\rho} = \partial_r \Gamma_{s\sigma}{}^{\rho} - \partial_s \Gamma_{r\sigma}{}^{\rho} + \Gamma_{r\lambda}{}^{\rho} \Gamma_{s\sigma}{}^{\lambda} - \Gamma_{s\lambda}{}^{\rho} \Gamma_{r\sigma}{}^{\lambda}$

$R_{\sigma pq}{}^{\rho} = R_{pq} + C_{\sigma\rho pq}$

$R_{\sigma rs}{}^{\rho} = R_{rs} + C_{\sigma\rho rs}$

$S = (1/16\pi G)\, [\int d^4x\sqrt{-g}\, R - 2\int \Lambda d^4x\sqrt{-g} + \int d^4x\sqrt{-g}\, (\mathfrak{I}^{p}{}_{q} - \mathfrak{I}^{r}{}_{s})$

$\int d^4x\sqrt{-g}\, R - 2\int \Lambda d^4x\sqrt{-g} + \int d^4x\sqrt{-g}\, (\mathfrak{I}^{p}{}_{q} - \mathfrak{I}^{r}{}_{s}) = 0$ ………….1

This is the ruptured boundary condition at ergo sphere of black hole.

The ruptured space black hole zone should satisfy equation 1.

The warming zone should satisfy $1/(\int d^4x\sqrt{-g}\, R - 2\int \Lambda d^4x\sqrt{-g} + \int d^4x\sqrt{-g}\, (\mathfrak{I}^{p}{}_{q} - \mathfrak{I}^{r}{}_{s})) = 0$as E/m tends to ∞.

4. Conclusion

From the study; it is to be concluded that before reaching to singularity for huge man accumulation the space rupture at ergosphere $\int d^4 x \sqrt{-g}\, [(R_{\sigma pq}{}^{\rho} - R_{\sigma rs}{}^{\rho}) - 2\Lambda + (\rho_q{}^{p} - \rho_s{}^{r})] = 0$ Is the condition of space ruptured and the metric tensor related Riemannian tensor and the lagrangian stress energy tensor relationship. The man becomes energy in warming zone and the energy to man is converted and the mass is released to black hole of the other universe. The warming zone is elliptical in shape. At the warming zone $1/(\int d^4 x \sqrt{-g}\, [(R_{\sigma pq}{}^{\rho} - R_{\sigma rs}{}^{\rho}) - 2\Lambda + (\rho_q{}^{p} - \rho_s{}^{r})]) = 0$ is to be satisfied.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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