

Escape from a Black Hole

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Abstract: The following postulate is under the category of Theoretical Physics. In the following postulate, I present the idea of possible escape for an object from a Black Hole. There will be 3 cases presented:

1. When two Black Holes with equal mass (such that $M_2 = M_1$) and equal velocities ($V_2 = V_1$) and with the same spin collide.
2. When two Black Holes with masses of M_1 and M_2 respectively (such that $M_2 > M_1$) and equal velocities ($V_2 = V_1$) have opposite directions (M_2 with clockwise direction and M_1 with anti-clockwise) collide.
3. When two Black Holes with masses of M_1 and M_2 respectively (such that $M_1 > M_2$) and equal velocities ($V_2 = V_1$) have opposite directions (M_2 with clockwise direction and M_1 with anti-clockwise) collide.

And an object of definite mass is presented in the Black Hole with mass M_1 and results are obtained as the effect on the condition of the object (the effect on its particles i.e. stretch/compression on the object will be caused due to the expansion/compression of the inter-molecular spaces between the particles).

Keywords: High energy physics, black holes, inter-molecular spaces.

1. Introduction

A. Case 1

When two Black Holes with equal mass (such that $M_2 = M_1$) and same spin collide. As mentioned above, an object of definite mass will be present in the area of impact of the gravitational force of the Black Hole with mass (M_1). As these Black Holes enter the stage of binary black holes, they form a zone of gravitational waves into a circular path with the same direction which the two Black Holes possess. The consequence is proposed with respect to the effect on the object that the inter-molecular spaces of the object increase as the atoms from both the ends of the object are pulled apart, against the direction of their attractive inter-molecular spaces. This is due to the impact created by the immense gravitational pull due to the curve formed by the gravitational waves by the centre of the Black Holes (with respect to Einstein's Theory of Relativity)² on their respective positions.

B. Case 2

When two Black Holes with masses of M_1 and M_2 respectively (such that $M_2 > M_1$) and equal velocities ($V_2 = V_1$) have opposite spins (M_2 with clockwise direction and M_1 with anti-clockwise) collide. As mentioned above, an object of definite mass will be present in the area of impact of the gravitational force of the Black Hole with mass (M_1). As these Black Holes enter the stage of binary black holes, they form a

zone of gravitational waves into a circular path with the dominant direction of the larger (in terms of mass) Black Hole (Mass= M_2) (with respect to law of gravitation)¹. The consequence is proposed with respect to the effect on the object that the atoms of the object come closer to each other and the inter-molecular spaces decrease. This is due to the impact created by the immense gravitational pull due to the curve formed by the gravitational waves by the centre of the Black Hole with more mass (M_2) (with respect to Einstein's Theory of Relativity) as the gravitational curve produced by the Larger Black Hole acts as the area of effect and the smaller Black Hole's gravitation (M_1) is actually merging into it as it is too weak on comparison with that of the larger one.

C. Case 3

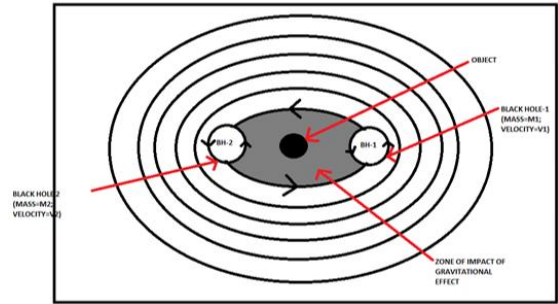
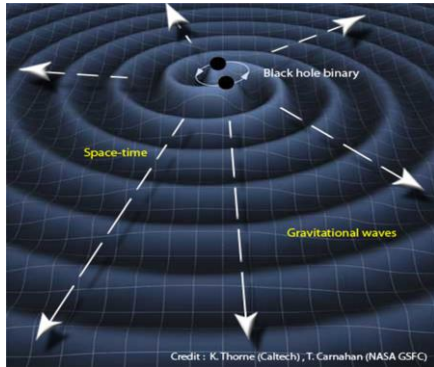
When two Black Holes with masses of M_1 and M_2 respectively (such that $M_1 > M_2$) and equal velocities ($V_2 = V_1$) have opposite directions (M_2 with clockwise direction and M_1 with anti-clockwise) collide. As mentioned above, an object of definite mass will be present in the area of impact of the gravitational force of the Black Hole with mass (M_1). As these Black Holes enter the stage of binary black holes, they form a zone of gravitational waves into a circular path with the dominant direction of the larger (in terms of mass) Black Hole (Mass= M_1) (with respect to law of gravitation) The consequence is proposed with respect to the effect on the object that the atoms of the object do not undergo action of any force acting against their inter-molecular attractive forces. This is due to the impact created by the immense gravitational pull due to the curve formed by the gravitational waves by the centre of the Black Hole with more mass (M_1) (with respect to Einstein's Theory of Relativity) as the gravitational curve produced by the Larger Black Hole acts as the area of effect and provides firm resistance against the gravitational impact of the smaller Black Hole (M_2) as it is weaker on comparison with that of the larger one.

D. Application of case 3

Now as observed in the final case mentioned above, at one point during the stage of binary black holes, when the gravitational curve produced by the Larger Black Hole (M_1) acts as the area of effect and provides firm resistance against the gravitational impact of the smaller Black Hole (M_2), the gravitational effect of the first Black Hole (M_1) on the object due to the curve formed by the gravitational waves by the centre of the Black Hole decreases to a point such that the object gets the opportunity to ESCAPE the Black Hole as its gravitation becomes weaker than the initial value involved.

This case only possible if $(M_1 - M_2)$ is very less (the value of difference is to a certain level; It will be defined on further documentation).

E. Figures



2. Conclusion

This paper presented an overview on escape from a black hole.

References

- [1] John. R. Taylor, "Classical Mechanics."
- [2] Stephen Hawking, "A Brief History of Time."
- [3] John. D. Barron, "The Book of Universes."
- [4] Stephen Hawking, A Graphic Guide: J.P. McEvoy & Oscar Zarate