An alternative Theory of Black Holes

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Abstract

We are criticizing the conventional theories of Black Holes.

1 Introduction

Conventional theories of Black Holes are saying that Black Holes are results of imploding stars. A prerequisite is a defined size. A definite problem of this idea is that according to Newton,

\[ m_{sol}a = \gamma \frac{m_{sol}M_{BH}}{r^2}, \]

with \( m_{sol} \)= mass of sun and \( M_{BH} \)= mass of Black Hole, if \( M_{BH} \to \infty \) follows \( r \to 0 \) and \( a \to \infty \).

So any star would feel the gravity of the Black hole.

Conventional theories are telling us, that any Black Hole has an event horizon which plays the role of a border beyond nothing can escape even not light.

The first problem with this idea, is that there’s no logical reason why there should be a more or less sharp border that makes a Black Hole having a border. Probably the idea of a star which is imploding is of finite size is the result of an event horizon.

We don’t discuss the process of an implotion of a star here.

According to Newton (1), gravity is always existing and because of \( M_{BH} \to \infty \) nothing can escape a Black Hole, no matter how far away the star is from it.
2 New Idea

We are proposing a new idea that is explicit following from Einstein’s energy formula, i.e.:

\[ E = mc^2 = \frac{m_0}{\sqrt{1 - (v/c)^2}} c^2, \]  

(2)

According to (2), if \( v \to c \), which is the travelling velocity of the Black Hole, the mass becomes close to infinity. The problems of a singularity and the event horizon are not a problem anymore. A Black Hole is becoming a relativistic effect.