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PROGNOSING HOW TIME PASSES IN A BLACK HOLE: A STUDY IN PHYSICS AND  
COSMOLOGY.

**Abstract**

Cosmology is one of humanity's greatest curiosities: it seeks to understand fundamental questions such as how the universe works and the nature of time. In this sense, many theories and models have been proposed, but some are particularly interesting. In this article, we will discuss studies carried out in the field of physics and cosmology to understand how time works, especially around black holes.

**The Mystery of Black Holes:**

Black holes are regions where the gravitational field is so strong that neither light nor matter can escape. Therefore, how time works around black holes has long been a mystery. General relativity theory explains how time is affected near black holes, but more study is needed to understand exactly what these effects are.

**Review and Observations:**

Observations and theoretical models must come together to understand how time works around black holes. For example, space telescopes and other observation instruments can be used to measure how time changes around black holes. At the same time, mathematical and theoretical models must be developed to understand the complexity of general relativity theory.

**Quantum and Black Holes:**

Quantum physics explains the behavior of particles at the microscopic level and studies the most fundamental building blocks of the universe. An important question is how quantum effects are affected in extreme gravitational environments such as black holes. Studies on this subject may help us better understand how time works inside black holes.

**The Meaning of Time and Black Holes:**

Time is a fundamental property of the universe, and how time works around black holes can provide a deep understanding of the general workings of the universe. Understanding how time is affected inside black holes could help us better understand the nature of the universe and perhaps the universe itself.

**Conclusion:**

Understanding how time works around black holes is an important area of research in physics and cosmology. A combination of observations, theories and mathematical models plays a key role in solving this mystery. Further research into how time works around black holes could provide a deeper understanding of the nature of the universe and perhaps equip us with a greater cosmological consciousness.