## Spacetime concept in general relativity and Black hole image

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## Abstract

The theory of general relativity proposes that gravitation is a result of spacetime curvature. This talk will provide a brief overview of the mathematical structure used to describe spacetime in this framework. Additionally, we will delve into the intriguing concept of black holes and explore how recent observations by the Event Horizon Telescope align with general relativity predictions. By the end of this talk, you will gain a better understanding of the intricate relationship between spacetime and gravity, as well as the latest advancements in observational astronomy.