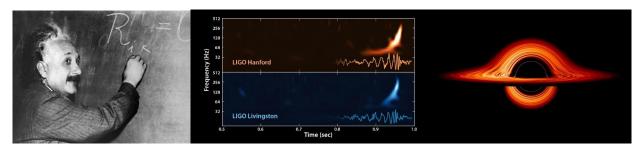


Colliding Black Holes

HON 210 – The Physics of Interstellar – Fall 2020 Dr. R. L. Herman, Mathematics and Physics

What would you see if you fell into a black hole? - It's a question people did not ask in 1915. But in the last decade there have been new scientific discoveries based on Einstein's predictions from 100 years ago as well as a movie inspired by his physics, the 2014 film "Interstellar," in which such questions were asked and answered.



Einstein

Detection of Gravitational Waves

First black hole picture

In this course we use "Interstellar" as a launching pad to explore the mysteries of the universe from its origins to the recent discoveries of gravitational waves spawned by colliding black holes, interstellar travel, and the portrayal of black holes and wormholes in film. We explore the physics background from special and general relativity, quantum mechanics, and cosmology and see how our view of the universe changed over the last 100 years and what questions remain unanswered?



Iconic images and stories of how black holes are depicted in art and film