

# Video: 100 years of gravity

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One hundred years ago this month, observations performed during a total solar eclipse proved for the first time the gravitational bending of light predicted by Albert Einstein's new theory of gravity, general relativity. In this video, Günther Hasinger, ESA Director of Science, reflects on this historic measurement that inaugurated a century of exciting experiments, investigating gravity on Earth and in space and proving general relativity in ever greater detail.

On Earth, we deal with gravity every day. We feel it, we fight it, and –more importantly –we investigate it. Space agencies such as ESA routinely launch spacecraft against our planet's gravity, and sometimes these spacecraft borrow the gravity of Earth or other planets to reach interesting places in the solar system. We study the gravity field of Earth from orbit, and fly experiments on parabolic flights, sounding rockets and the International Space Station to examine a variety of systems under different gravitational conditions. On the grandest scales, our space science missions explore how gravity affects planets, stars and galaxies across the cosmos and probe how matter behaves in the strong gravitational field created by some of the universe's most extreme objects like black holes. Join the conversation online this week following the hashtag [#GravityRules](#).

Provided by European Space Agency

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