

# Measuring the Spin of Black Holes

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Cosmic black holes are characterised by just their mass and spin. Both can be measured by observing the orbits of matter around the black hole, although spin requires that the matter be close to the event horizon. X-ray observations of the innermost accretion flow around black holes in our Galaxy and the nuclei of other galaxies show spectral features which can be used to determine spin. Relativistically-broadened iron lines are commonly seen from accreting black holes and some neutron stars, revealing several effects of strong gravity such as gravitational redshift and light bending. Results will be shown and discussed, together with implications from the emerging spin distribution of the origin and evolution of black holes.