

Black holes in General Relativity and beyond

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Recent years we have seen important developments in black hole physics. Gravitational waves from the inspiral, merger and ringdown of black holes have been observed, the shadows of the supermassive black holes and the center of M87 and the Milky Way, Sgr A* have been imaged, and the orbits of the S-stars around Sgr A* have been measured increasingly accurate. In this talk I will give an introduction to black holes in General Relativity and address the above observations. I will end with a glance at black holes in alternative theories of gravity.