

CHAPTER OVERVIEW

2: Schwarzschild Geometry

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Thumbnail: The supermassive black hole at the core of supergiant elliptical galaxy Messier 87, with a mass about 7 billion times that of the Sun, as depicted in the first false-colour image in radio waves released by the Event Horizon Telescope (10 April 2019). Visible are the crescent-shaped emission ring and central shadow,[19] which are gravitationally magnified views of the black hole's photon ring and the photon capture zone of its event horizon. The crescent shape arises from the black hole's rotation and relativistic beaming; the shadow is about 2.6 times the diameter of the event horizon. (CC BY 4.0; [Event Horizon Telescope](#))

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