



AWARDS

THE 2020 BREAKTHROUGH PRIZE GOES TO THE 347 SCIENTISTS OF THE EVENT HORIZON TELESCOPE COLLABORATION

The Event Horizon Telescope collaboration (EHT) was awarded the 2020 Breakthrough Prize for Fundamental Physics “for the first image of a supermassive black hole, taken by means of an Earth-sized alliance of telescopes”, which was announced on 10 April 2019. The prize, which is worth some three million dollars, will be divided between the collaboration’s 347 scientists, in which researchers from the Italian Institute for Nuclear Physics (INFN) and from the National Institute for Astrophysics (INAF) participate. These researchers include Mariafelicia De Laurentis, INFN researcher and professor of astrophysics at the Federico II University of Naples, who, as a member of the EHT collaboration, coordinated the experiment’s theoretical analysis group.

EHT is a distributed network across the Earth, composed of a set of radio telescopes that operate in a coordinated way to construct a single instrument of global dimensions and unprecedented sensitivity and resolution. Specifically designed with the purpose of capturing the image of a black hole, EHT presented the first direct visual proof of a black hole and of its shadow on 10 April. More specifically, the image captured the event horizon of the supermassive black hole, with a mass equivalent to 6.5 billion solar masses, which is located 55 million light years from the Earth, at the centre of the Messier 87 galaxy. The result was described in six scientific articles published in *The Astrophysical Journal Letters*. ■