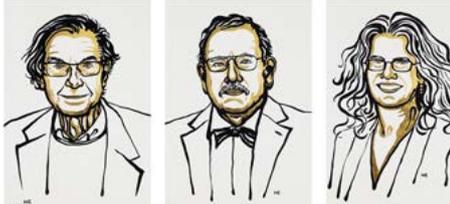


The Nobel Prize in Physics 2020

AWARDS

2020 NOBEL PRIZE FOR PHYSICS GOES TO BLACK HOLES



A half of the 2020 Nobel Prize for Physics has been awarded to the English physicist Roger Penrose, "for the discovery that black hole formation is a robust prediction of the general theory of relativity", while the other half was awarded jointly to the German physicist Reinhard Genzel and the American physicist Andrea Ghez "for the discovery of a supermassive compact object at the centre of our galaxy". In particular, Roger Penrose demonstrated that the general theory of relativity leads to the formation of black holes, while Reinhard Genzel and Andrea Ghez discovered that an invisible and extremely heavy object governs the orbits of the stars at the centre of our galaxy and a supermassive black hole is the only currently known explanation. "This year's Nobel Prize to Penrose, Genzel and Ghez is a great recognition not only for the three scientists – said INFN President, Antonio Zoccoli - but also of the work of a large community of researchers working on black hole physics, to which INFN provides a fundamental contribution on both the theoretical as well as observational front, participating in large international collaborations such as EHT and managing the VIRGO gravitational wave interferometer which, together with LIGO, has allowed the experimental observation of new black hole populations. We are also working with great commitment on the future of the study of these astrophysical objects, through the study of gravitational waves and designing the new generation Einstein Telescope interferometer for which Italy has nominated Sardinia as the host site". ■