

The Nobel Prize in Physics 2020

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Physics 2020 with one half to _____ and the other half jointly to _____

Roger Penrose

University of Oxford, UK

“for the discovery that black hole formation is a robust prediction of the general theory of relativity”

Reinhard Genzel

Max Planck Institute for Extraterrestrial Physics, Garching, Germany and University of California, Berkeley, USA

“for the discovery of a supermassive compact object at the centre of our galaxy”

Andrea Ghez

University of California, Los Angeles, USA

Black holes and the Milky Way's darkest secret

Three Laureates share this year's Nobel Prize in Physics for their discoveries about one of the most exotic phenomena in the universe, the black hole. Roger Penrose showed that the general theory of relativity leads to the formation of black holes. Reinhard Genzel and Andrea Ghez discovered that an invisible and extremely heavy object governs the orbits of stars at the centre of our galaxy. A supermassive black hole is the only currently known explanation.

The Nobel Prize in Physics 2019

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Physics 2019

“for contributions to our understanding of the evolution of the universe and Earth’s place in the cosmos”

with one half to

James Peebles

Princeton University, USA

*“for theoretical discoveries
in physical cosmology”*

and the other half jointly to

Michel Mayor

University of Geneva, Switzerland

“for the discovery of an exoplanet orbiting a solar-type star”

Didier Queloz

University of Geneva, Switzerland

University of Cambridge, UK

New perspectives on our place in the universe

This year’s Nobel Prize in Physics rewards new understanding of the universe’s structure and history, and the first discovery of a planet orbiting a solar-type star outside our solar system.

The Nobel Prize in Physics 2017

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Physics 2017

with one half to

and the other half jointly to

Rainer Weiss

LIGO/VIRGO Collaboration

Barry C. Barish

LIGO/VIRGO Collaboration

and

Kip S. Thorne

LIGO/VIRGO Collaboration

“for decisive contributions to the LIGO detector and the observation of gravitational waves”

Gravitational waves finally captured

On 14 September 2015, the universe's gravitational waves were observed for the very first time. The waves, which were predicted by Albert Einstein a hundred years ago, came from a collision between two black holes. It took 1.3 billion years for the waves to arrive at the LIGO detector in the USA.

NCTS-TCA Summer Student Program 2021

理論計算天文暑期學校

[TG 2.3 Theoretical and Computational Astrophysics, National Center for Theoretical Sciences, Taipei, Taiwan](#)

The [Theoretical and Computational Astrophysics](#) (TCA) Thematic Group at the National Center for Theoretical Sciences hosts its first undergraduate summer student program in 2021. This program aims to provide research experiences to undergraduate students and equip them with basic theoretical and computational skills. Students will be working under the supervision of domestic astrophysicists, on a wide range of topics from cosmology to planet formation. Frontier techniques in astronomy, problem solving skills, and numerical programming will be learned during this program.

July 05 - 07: The summer program will start with a 3-day workshop. Lectures on basic astrophysics and research overview will be provided.

July 01 - August 31 During the 2-month program, participants will work on their research topics with their supervisors at respective institutes. Local activities may be arranged by the supervisors.

Remember to look up at the stars

$$S = \frac{kc^3A}{4\hbar G}$$

STEPHEN HAWKING

★
FELLOW
1965-2018
★

and not down at your feet