

THE SHAW PRIZE LECTURE ON ASTRONOMY 2019

The Shaw Prize in Astronomy 2019 is awarded to Professor Edward C STONE, David Morrisroe Professor of Physics and Vice-Provost for Special Projects, California Institute of Technology, USA, for his leadership in the Voyager project, which has, over the past four decades, transformed our understanding of the four giant planets and the outer solar system, and has now begun to explore interstellar space.



The Voyager Journey to the Giant Planets and Interstellar Space

by **Professor Edward C STONE**

Shaw Laureate in Astronomy 2019
David Morrisroe Professor of Physics and Vice-Provost for Special Projects
California Institute of Technology, USA

DATE

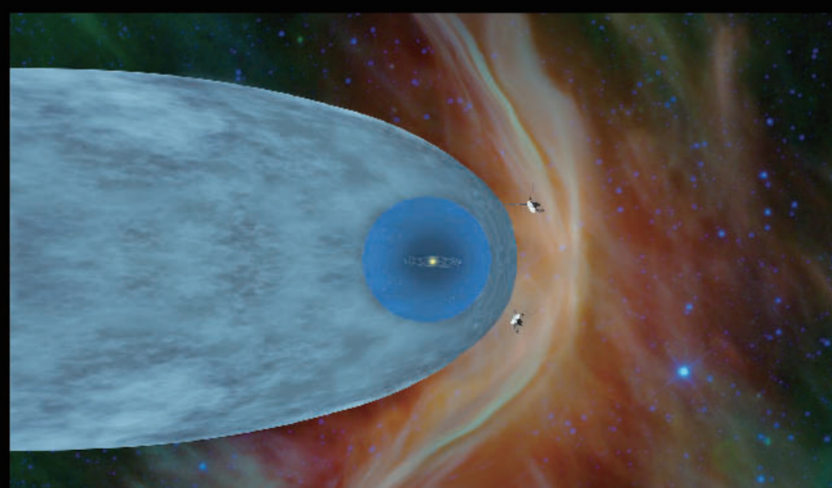
September 26, 2019 (Thursday)

TIME

11 am – 12:15 pm
(Light refreshments from 10:30 am)

VENUE

Wang Gungwu Theatre, Graduate House,
Main Campus, HKU



The illustration shows the position of Voyager 1 and Voyager 2 probes, outside of the heliosphere, a protective bubble created by the Sun that extends well past the orbit of Pluto.

ABSTRACT

Two Voyager spacecrafts were launched in 1977 to explore Jupiter, Saturn, Uranus, and Neptune. They revealed a solar system of surprising diversity, transforming our view of planets and their many satellites. The spacecrafts continued onward, searching for the boundary of the heliosphere, a giant bubble of plasma wind created by the sun. Outside the bubble lies interstellar space with matter from the explosions of other stars. In 2012, Voyager 1 became the first human-made object to leave the heliosphere and enter interstellar space. Six years later, Voyager 2 joined its sister spacecraft in exploring the space between the stars. In this talk, Professor Stone will talk about how he has led the Voyager project, which has transformed our understanding of the four giant planets and the outer solar system.

ABOUT THE SPEAKER

Professor Edward C STONE is currently David Morrisroe Professor of Physics and Vice-Provost for Special Projects, California Institute of Technology, USA. He earned his PhD in physics from the University of Chicago in 1964. Since the Voyager spacecrafts were launched in 1977, Professor Stone has led and coordinated 11 instrument teams on the project. He also served as the Director of JPL from 1991 to 2001, overseeing many space-based missions, including Cassini, and a programme of Mars exploration that included Mars Pathfinder and its Sojourner rover.



In the mid 1980s through the 1990s, he served as a Vice-chairman and Chairman of the Board of Directors of the California Association for Research in Astronomy, which is responsible for building and operating the Keck telescopes. He is currently playing a similar role in the development of the planned Thirty Meter Telescope, an international partnership that includes the US, Canada, China, Japan, and India.

Professor Stone is the recipient of numerous awards, including the President's National Medal of Science (1991), the Magellanic Premium (1992), the Carl Sagan Memorial Award (1999), the Philip J Klass Award for Lifetime Achievement (2007), the NASA Distinguished Public Service Medal (2013), and the Howard Hughes Memorial Award (2014). He is a member of the National Academy of Sciences.

