

STARDUST:

The Cosmic Seeds of Life

Monday, February 27, 2:30 PM

Venue: Earth Hall, 4th floor, Building A, NSSC Campus



Prof. Sun Kwok

The University of Hong Kong

How did life originate on Earth? For over 50 years, scientists believed that life was the result of chemistry involving simple molecules such as methane and ammonia cooking in a primordial soup. Recent space observations have revealed that old stars are capable of making very complex organic compounds. The stars then ejected the organics and spread them all over the Milky Way Galaxy. There is evidence that these organic dust particles actually reached the early Solar System. Through bombardments by comets and asteroids, the early Earth inherited significant amounts of star dust. Was the development of life assisted by the arrival of these extraterrestrial materials? In this talk, we describe discoveries in astronomy and solar system science over the last 10 years that resulted in a new perspective on the origin of life.

Prof. Sun Kwok's research areas are astrochemistry and stellar evolution. He is best known for his theory on the origin of planetary nebulae and the death of Sun-like stars. His recent research has been on the topic of the synthesis of complex organic compounds in the late stages of stellar evolution. Between 2004 and 2006, he served as the Canadian astronomy Principal Investigator of the submillimeter mission Odin, the second submillimeter satellite in space.

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