



## Twinkle twinkle little stars, how I wonder how you die

**Date:** October 5, 2022 (Wednesday)

**Time:** 5:00 p.m.

**Venue:** MWT5, 1F, Meng Wah Complex,  
The University of Hong Kong

*Prof. Ming Chung CHU*  
CUHK



### **Abstract:**

Supernovae – explosions of dying stars – are remarkable events that play an essential role in stellar evolution, as well as the spreading of elements and reshaping of the matter distribution in the universe. The study of supernovae is entering a golden age with many new observational tools utilizing neutrino, gravitational-wave, and electromagnetic-wave observations, and exciting discoveries are expected. I will introduce three types of supernovae: Thermonuclear, Accretion-induced collapse, and Core-collapse supernovae, and how they might be used to detect dark matter and quark deconfinement.

### **Biography:**

Prof. Chu obtained his BSc and PhD degrees both at California Institute of Technology (Caltech). He held research positions at MIT and Caltech before joining the Chinese University of Hong Kong in 1995. His current research interest includes astrophysics, cosmology, and particle physics. In particular, he has been the PI of the Hong Kong team of the Daya Bay Reactor Neutrino Experiment, which has discovered a new kind of neutrino oscillation that bears important implications for cosmology and particle physics. In 2014, he and colleagues in The Chinese University of Hong Kong, University of Hong Kong and Hong Kong University of Science and Technology formed a Hong Kong Cluster and joined the ATLAS Collaboration at the Large Hadron Collider, CERN.

Anyone interested is welcome to attend!

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