



**THE CHINESE UNIVERSITY OF HONG KONG**  
**Department of Physics**  
**SEMINAR**

# **Latest Status and Physics Potential with the JUNO Experiment**

*by*

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*Time: 3:00 - 4:00 p.m.*

*Place: L3, Science Centre, CUHK*

**ALL INTERESTED ARE WELCOME**

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## **Abstract**

The Jiangmen Underground Neutrino Observatory (JUNO) is a multipurpose neutrino observatory in China, with the construction of its detector complex recently completed and liquid filling now underway. The JUNO detector features a 20 kton liquid scintillator target monitored by approximately 18,000 20-inch Photomultiplier Tubes (PMTs) and around 26,000 3-inch PMTs. Strategically located 53 km from the Taishan and Yangjiang Nuclear Power Plants, this detector aims to primarily determine the neutrino mass ordering and to accurately measure various oscillation parameters. In this talk, I will provide an introduction to the detector's design and construction status, followed by a discussion on the experiment's potential for studying reactor neutrinos, atmospheric neutrinos, solar neutrinos, and astrophysical neutrinos.