SPEAKER: Meng-Kiat Chuah (National Tsing Hua University, Hsinchu)
TITLE: **Symplectic and complex geometry of $G \times \mathfrak{h}$**

ABSTRACT: Let G be a connected real semisimple Lie group, and $\mathfrak{h}$ a Cartan subalgebra of the Lie algebra of G. We discuss certain symplectic forms and partially complex structures on $G \times \mathfrak{h}$, and subsequently perform geometric quantization. This leads to a unitary G-representation on the Hilbert space, which is a direct integral of a series of G-representations indexed by the image of the moment map.