THE CHINESE UNIVERSITY OF HONG KONG

Department of Physics

SEMINAR

An ALMA Survey of Massive Star Forming Regions with Class II Methanol Masers

by

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ALL INTERESTED ARE WELCOME
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Abstract

There are growing evidences suggesting that, similar to those in low-mass young stellar objects, luminosity burst phenomena also occur in massive star forming cores. Observationally, there are further very compelling evidences implying the association between Class II methanol maser flaring events and the luminosity burst in massive star forming regions (MSFRs). Such luminosity bursts are plausibly related to variable accretions events not only in low mass but also in high mass star formation processes as hinted by numerical radiation hydrodynamic simulations. While monitoring observations of the 6.7GHz Class II CH3OH maser in MSFRs have been routinely conducted but there is a lack of a uniform database and coherent knowledge about their associated submillimeter continuum emission and molecular gas properties. With that in mind, I will introduce a survey with the ALMA 12-m array and the ACA in their operation Cycle 8 and 9 at Band 6 and Band 7, respectively, toward 169 massive star forming sites associated with 6.7 GHz CH3OH masers with the main 12-m array and the ACA, respectively.

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