



OPEN TALK ANNOUNCEMENT

21 January 2016

4:00 p.m

Fermion

Speaker:

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(VASP Short Term Visitor to Dr. Soumen Mondal)

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Title:

Stellar feedback in massive star forming regions: Any implications?

Abstract:

One of the unsolved questions in the field of star formation concerns the effect that environment, in particular the stellar feedback may have on the subsequent star formation process. Numerical simulations show that the effect of stellar feedback in a massive star forming region depends upon several factors such as the amount of input radiation and wind energy, properties of the surrounding molecular cloud etc. As a result, the feedback effect on star formation activity may vary from region to region. In this context, star formation activity within a few, relatively distant (~ 2 kpc) massive star forming regions, which are thought to be evolving under the influence of massive stars have been performed. Using deep near-IR and mid-IR imaging data, a systematic analysis of the census of young stellar objects and gas density structure of these regions has been made. The combination of column density maps and stellar census is used to estimate the star formation efficiency and star formation rate of these regions. With the uniform data sets, we explore how the star formation properties at different parts of individual regions vary with respect to the dense gas fraction as well as the amount of input energy from massive stars. The effect of stellar feedback on global as well as local star formation properties of individual star forming regions will be discussed.

