
Colloquium

Cryogenic Bolometers to search for Neutrinoless Double Beta Decay

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The mass and nature of neutrinos play an important role in theories beyond the standard model. The neutrinoless double beta decay ($0\nu\beta\beta$) is particularly interesting as it can provide information on nature of neutrinos (Dirac/Majorana) and absolute effective mass of the neutrinos. Given the significance, there are many experiments worldwide to study this rare process employing many novel techniques. In India, the development of Tin cryogenic bolometer has been initiated. TIN.TIN (The INdia-based TIN detector) to search for $0\nu\beta\beta$ in ^{124}Sn , will be setup at the upcoming underground facility of India based Neutrino Observatory. This talk will present various R&D aspects of the TIN.TIN with emphasis on challenges involved in mK measurements and rare event studies.

Thursday, Mar 26th 2015

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS