Astronomy & Astrophysics Division Seminar

Title : In situ 1.2m telescope mirror aluminizing facility at Mount Abu

Speaker : Mr. Prahlad Epili (PRL, Ahmedabad)

Date : 03.10.2017 (Tuesday)

Time : 14:30 Hrs

Venue : Seminar Room # 113/114 (Thaltej Campus)

Abstract:

In X--ray astronomy, the study of X--ray binaries shows interesting features of the stellar X--ray sources. Among these the spectacular variability seen in High mass X--ray binaries (HMXBs) at different time scales can be studied to understand the nature of the two stellar components, the physics of matter at extreme physical conditions, the 'accretion' process governing the mass transfer to the compact object etc. Majority of these HMXBs are bright and transient in nature. One such class of bright X--ray transients are Be/X--ray binaries. In theses sources, an abrupt accretion of huge amount of matter from the normal star onto the neutron star is seen with X--ray outbursts, i.e an enhancement in the X--ray emission. Study of these X--ray outbursts (some are periodic and some are aperiodic) forms an important basis to further our understanding of these sources. EXO 2030+375 is a transient Be/X--ray binary system. It has been caught in X--ray outbursts numerous times during 1996-2011 in the RXTE era. We have studied the decade long X- ray observations of this binary to understand its long term X--ray variability. The details of the study will be presented.
