

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
DEPARTMENT OF ASTRONOMY & ASTROPHYSICS

ASTRONOMY SEMINAR

March 28, 2011

Speaker : Arunava Mukherjee
DAA-TIFR

Title : Study of X-ray timing of a neutron star low
mass X-ray binary

Day, Date & Time : Tuesday, 29 March, 2011 at 16.00 hrs

Venue : Lecture Theatre (AG-66)

(A. Gopakumar)

Abstract

I will discuss our recent study of the X-ray timing of a neutron-star low mass X-ray binary using Rossi X-ray Timing Explorer data. Among various things, I will mention the low-frequency quasi-periodic oscillations (QPOs) kilo-hertz quasi-periodic oscillations (kHzQPOs); the colour-colour diagram (CCD) and hardness-intensity diagram (HID), which indicate the source states; and thermonuclear bursts oscillation. Moreover, I will also report on the first systematic analysis of BO-frequency and that of X-ray pulsars. Finally, I plan to talk on a unification scheme of NS-LMXB and BH-LMXB.