

High Energy Astrophysics of Binary star systems

PHY667A

Instructors: Pankaj Jain and J. S. Yadav

Introduction to the high energy astrophysics

Stellar evolution

Compact stars: Black holes, neutron stars and white dwarfs

General relativistic effects

Interaction of photons with matter

Interaction of charged particles with matter

Binary stars

Mass transfer in binary stars

Formation of accretion disk

x-ray binaries

Detection of x-rays and gamma rays

space x-ray detectors

Challenges faced in space based detectors

ASTROSAT

observations and study of x-ray binaries

survey of x-ray binaries