Dr. K. Sriram, M.Sc., Ph.D
Assistant Professor
Email: astrosriram@yahoo.co.in

Specialization: X-ray studies: Study of X-ray timing and spectral properties of black hole sources, Nuetron stars source, white dwarf source, suppermassive black holes (Active Galactic Nuclei Source) and Ultra luminous X-ray sources (probable intermediate mass black holes). Study of Physical and radiative mechanisms associated with accretion disk around black holes and Neutron stars (atolls and Z-sources). General study of the post shock regions in neutron star and white dwarf systems. Understanding the phenomenon of Quasi periodic oscillations in black holes, neutron stars and white dwarfs systems. Study the Jet ejection mechanism in black hole and neutron stars sources. Monte-Carlo simulation of X-ray energy dependent crosscorrelation functions in various spectral states of galactic black holes and neutrons star systems. Proposals submitted to X-ray satellite Astrosat for X-ray data for studying neutron stars and white dwarf sources have been accepted. Optical studies: Study of contact binaries in field and clusters, Algols and beta Lyrae type systems. My main emphasis is on understanding the period changes and evolution of stellar spots and its quasi varying nature in eclipsing binaries along with the study of convective cycle in stars among eclipsing binaries. Rich experience in optical observations, both photometry and spectroscopy with IUCAA 2.0m, Pune and VBT 2.3m telescope, Indian Institute of Astrophysics, Bengaluru, India. Software Development: Developing software's for the analysis of X-ray

and optical data in Linux platform. Member of Astronomical Society of India (ASI) and South Korean Astronomical Society (KAS) and. Achieved two Best Post-doctoral fellowship awards at Korea Astronomy and Space Science Institute (KASI), South Korea for the years 2011 and 2012. Prestigious fellowship: Korea Young Scientist fellowship for a duration of 2011-2013. Visiting fellow: Tata Institute Fundamental Research Institute (TIFR), Mumbai, India and Associate of Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune, India. He is currently working on two projects 1. DST –SERB Fast track programme Project "Understanding the physical and radiative structure of accretion disk in the black hole and neutron star sources". 2. UGC—BSR Research start-up Grant Project title: "Photometric studies of stellar spots in Contact binaries using Kepler Satellite data". Supervising two research students for Ph.D. in the department. Presented many talks at international and national level conferences, workshops and seminars. participated in discussion on various astronomical topics in TV channels.