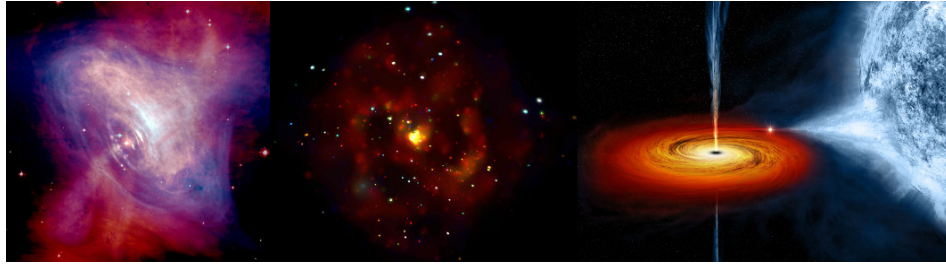


National conference on REcent Trends in the study of Compact Objects (RETCO-V): Theory and Observation



Contribution ID: 109

Type: not specified

Ambiguous Nuclear Transients

Tuesday, April 4, 2023 2:30 PM (20 minutes)

With the advent of the time-domain astronomy brilliant transients have been discovered near the centers of the galaxies. Photometric and Spectroscopic follow-ups of these objects by transient surveys like ePESSTO, ZTF, ASASSN have shown that spectral evolutions of these objects are different from that of supernovae, and their temporal evolutions can be explained to some extent as a stellar-disruption event due to the tidal force of the supermassive black hole (SMBH) at the center of the host. However, recently several nuclear transients, with ambiguous spectral and temporal evolution, have been discovered. The characteristics of these ambiguous nuclear events are neither like canonical TDEs nor like regular AGNs. Here, I will summarize the characteristics of some of these ambiguous events, and particularly describe the evolution of AT2020ohl which has been followed by us using various multi-wavelength facilities throughout the world. I will discuss about the probable progenitors and explosion geometries of these explosions. The role of SMBH in triggering such transient nuclear phenomena will also be discussed.

Presentation Type

Oral

Primary author: ROY, Rupak (MCNS, MAHE)

Presenter: ROY, Rupak (MCNS, MAHE)

Session Classification: Neutron Stars

Track Classification: Neutron Stars