

## Mapping out the accretion-ejection process through multi-wavelength nonlinear variability studies

Understanding accretion is of fundamental importance for a variety of reasons in astrophysics. Accreting compact objects give us our best opportunities to probe the spacetime around black holes and neutron stars. Jets from supermassive black holes are one of the key sources of energetic feedback into the interstellar medium. Accreting white dwarfs enrich the interstellar medium through both classical novae and Type Ia supernovae. Despite the importance of the topic, a good understanding of the geometry of accretion disks has been developed only in special cases. This is likely because the spectroscopic techniques which are so effective for stars (which are spherically symmetric, optically thick, and weakly variable) run into serious degeneracy problems when applied to non-spherical, "translucent", highly variable objects. I will discuss some novel (to astronomers) variability techniques that can be used to extract information from the variability which can help us to disentangle the geometry from X-ray binaries and cataclysmic variables in the same way that helioseismology has resulted in the best constraints on the properties of the interior of the Sun.