A Shocking Shift in Paradigm for Classical Novae

Over the last decade, our understanding of classical novae has been turned on its head with the discovery of gamma-rays from Galactic eruptions. This discovery has highlighted the value of novae---non-terminal, thermonuclear eruptions on the surfaces of white dwarfs in binary systems---as laboratories for studying shocks and particle acceleration. Paying special attention to results hailing from MSU, I will discuss where and how shocks form in the nova ejecta, why we think the shocks may actually dominate the energy budget of the nova eruption, and some of the consequences of the shocks, including acceleration of particles to very high (TeV) energies. These recent developments place novae amongst the ranks of interaction-powered transients, making them nearby, common examples of the physics that governs more exotic events like Type IIn supernovae, stellar mergers, and tidal disruption events.