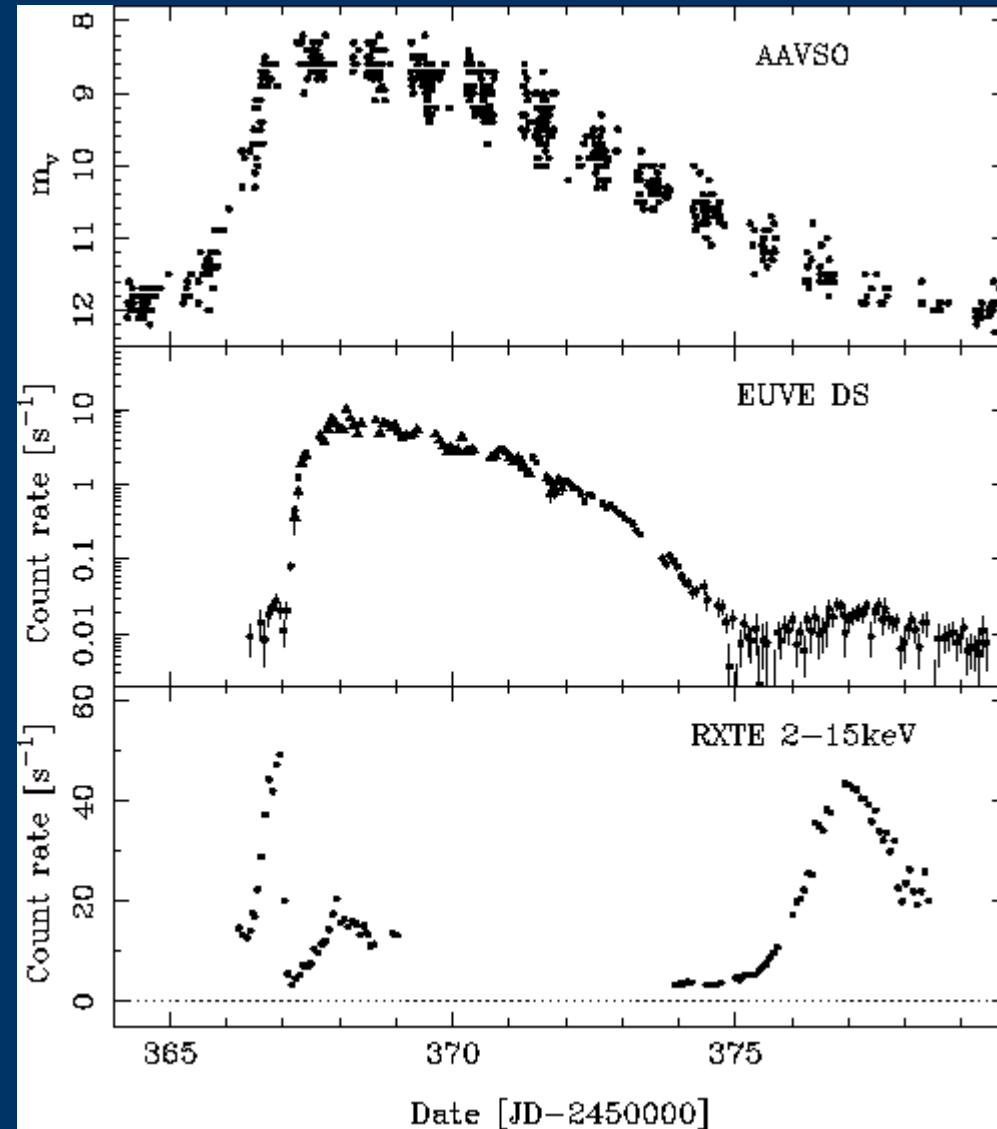
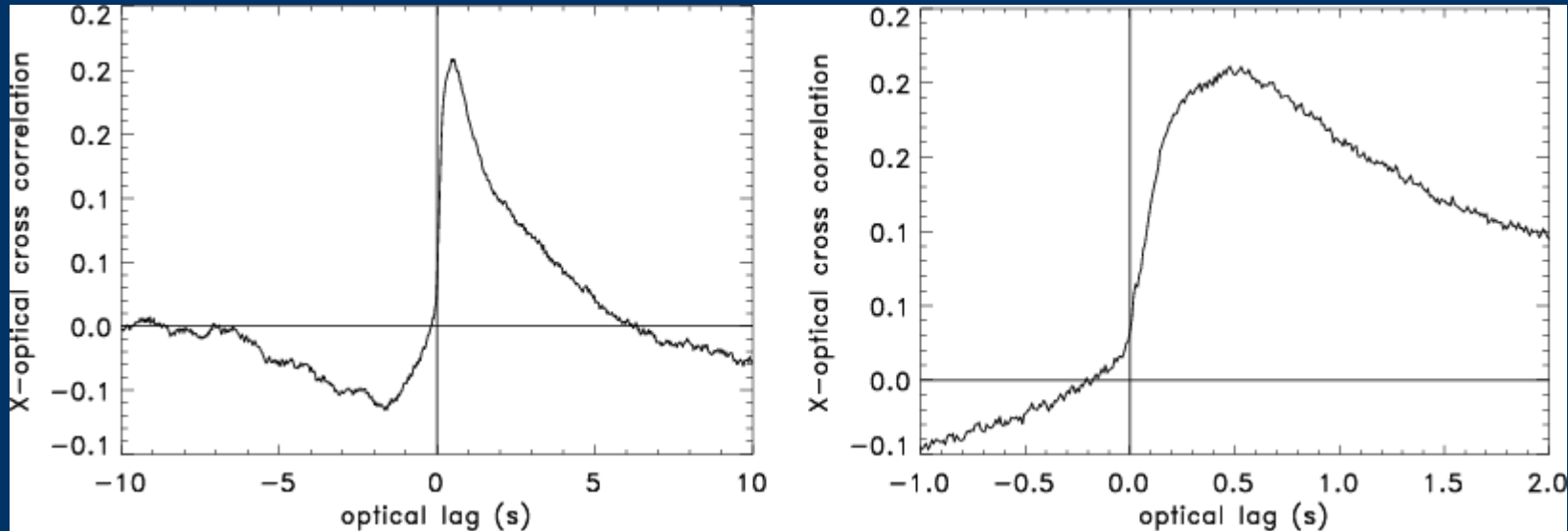


# Dwarf novae in dwarf galaxies

- Binary stellar evolution is inherently difficult problem
- Cataclysmic variables relatively numerous, purely binary phenomenon
- Current surveys plagued by poorly understood selection effects, plus Milky Way's star formation history is complicated
- Globular cluster CVs are interesting but populations are clearly affected by stellar dynamics
- Feasible for the first time with WIYN ODI to monitor a dSph to  $\sim 24^{\text{th}}$  magnitude with high cadence
- Can compare dwarf nova population with  $H\alpha$  excess population, dwarfs with clusters, etc.



# High time resolution modes



Spruit & Kanbach (2002) with OPTIMA on 1.3m telescope

- In many X-ray binaries, optical emission will come from synchrotron emission from the relativistic jet
- This is the lowest down in the jet one can go without contamination from the disk
- Disk-jet interactions can best be probed in this manner
- Time lags of  $\sim 0.1$ - $0.3$  seconds expected between X-rays and optical!
- ODI will be the only permanently mounted instrument on a mid-size or larger telescope that can deliver this time resolution