IPs and the GRXE

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March 4, 2019

What are IPs

- Magnetic CV ($\simeq 10$ MG)
- Accretes from a truncated disc
- $P_{spin} \sim P_{orb}/10$
- X-rays, and optical emission lines

Their relation to the GRXE

- Probably a major component of the GRXE
  - Spectrum is a hot plasma
  - Lots and lots of individual faint sources
- Interesting in their own right
  - Combination of disky and diskless accretion
  - Common endpoint of binary stellar evolution
- $L_X \simeq 10^{33}$ erg/s
- Subpopulation with $L_X \simeq 10^{31}$ erg/s?

Detection and identification

Bremsstrahlung-like spectrum of ~ 15 keV
Optical emission lines
Long term optical variability

$P_{spin} \sim P_{orb}/10$
So two different periods in optical and X-ray

Maybe cyclotron if we're lucky and magnetic field is very strong

The targets

Want a non X-ray selected candidate list

- Former novae
  - GI Mon (1918)
  - HZ Pup (1963)
  - V597 Pup (2007)
  - V1039 Cen (2001)
  - DQ Her (1934)
  - V4745 Sgr (2003)
  - V533 Her (1963)
  - V1425 Aql (1995)
- Others
  - V902 Mon (yes!)
  - V1084 Her
  - IGR J18151-1052
  - V349 Aqr

Archival X-ray detections bias the sample *but* also help with observing proposals

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- Big candidate list missing most obvious selection effects