X-Ray Outburst in the Accreting Pre-Main Sequence Star V1647 Ori: Outshining its Peers

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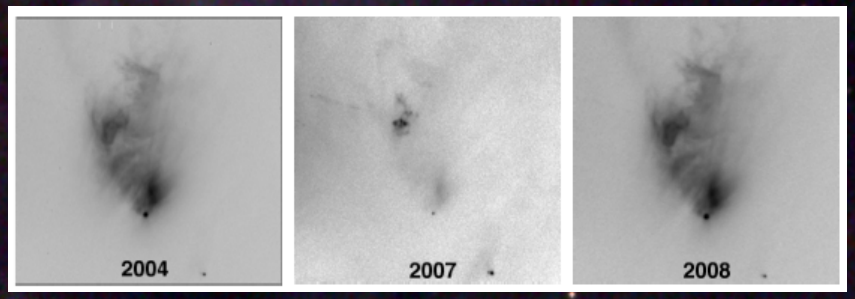
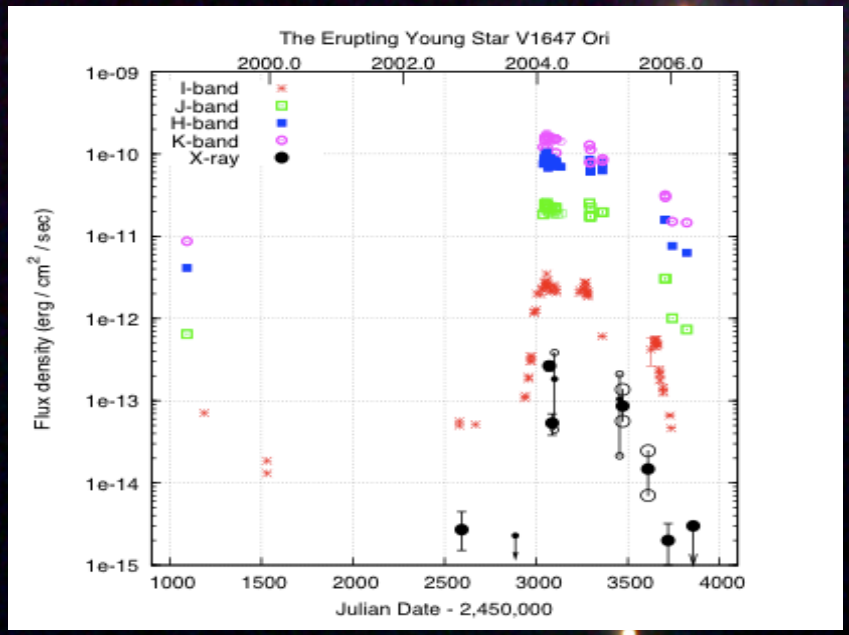
•Exor type outburst characterized by short lived (months-years) increase in mass accretion

•V1647 Ori has gone through two outbursts since 2004



V1647 Ori R band during outburst and quiescence (Aspin et. al 2009)



Kastner et al. 2006

•Increase in optical brightness in V1647 Ori attributed to accretion and partial clearing of dust (Reipurth & Aspin 2007)

•First time bright x-ray emission to accompany Exor outburst

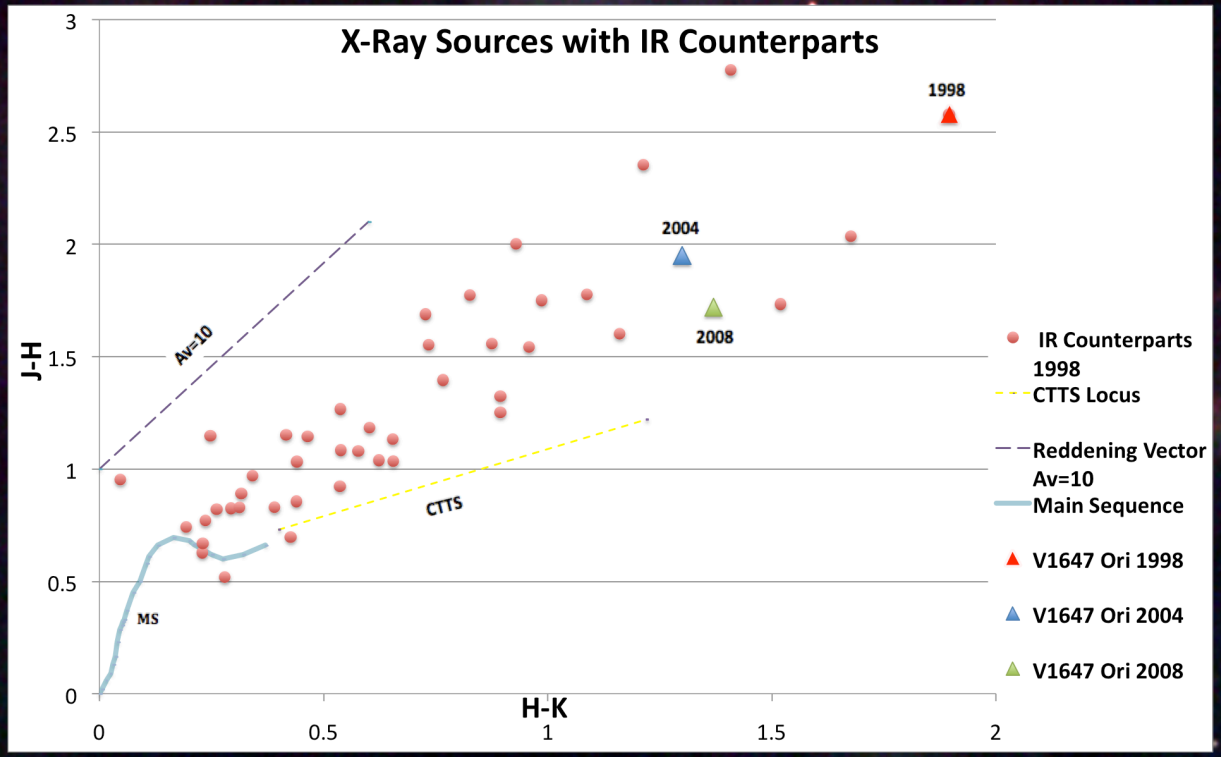
•X-ray emission could result from the interaction between accretion disk and stellar magnetosphere

Preliminary Results

•X-ray sources with infrared counterparts in star forming regions could indicate young T Tauri type stars

•Chandra and 2MASS observations of McNeil's nebula probe star forming region around V1647 Ori

•V1647 Ori becomes less reddened post-outburst relative to other stars in the local SFR



Future Work

- •X-ray spectral analysis of other stars in McNeil's nebula
- •Catalog possible new CTTS that are to deep for IR counterpart