

The Curious Case of the Young Binary Component UY Auriga B

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Consequences for Stellar/Planetary Formation

Because binaries are common, understanding planetary formation in these systems is vital

Planets form in primordial circumstellar and circumbinary disks; UY Auriga is a young binary system with complex disks

Our observations of UY Auriga B have shown the system is potentially even more complex

UY Auriga - System and History

UY Auriga is a binary star system in the Taurus-Auriga star forming region

Angular separation $\sim 0.8''$

Age $\sim 1-2$ Myr

First resolved by Joy in 1944

Further studies have revealed many interesting features

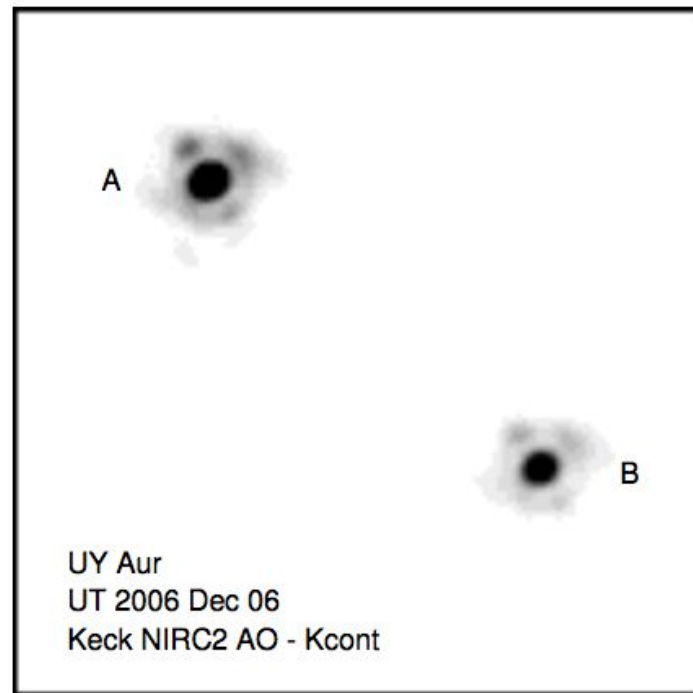


FIG. 1.— Figure 1: Photometry of UY Aur obtained December 6, 2006.

UY Auriga - System Specifics

The system possesses both circumstellar and circumbinary disks

Evidence of gas streamers from circumbinary to UY Aur A

Evidence of past outflows from UY Aur A

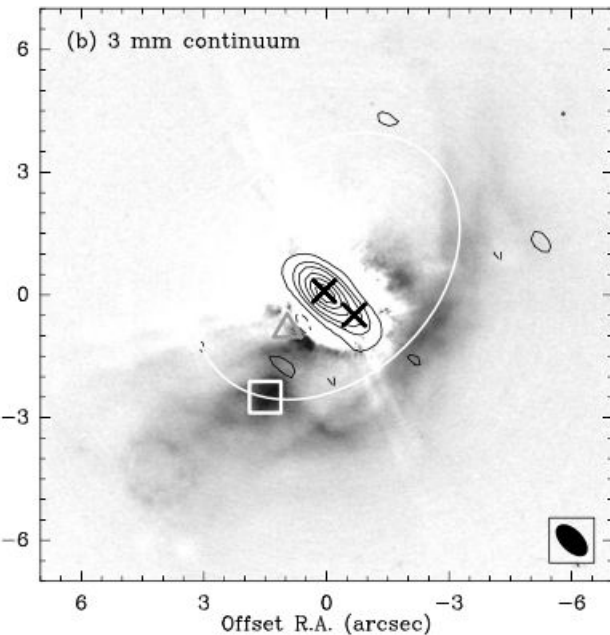
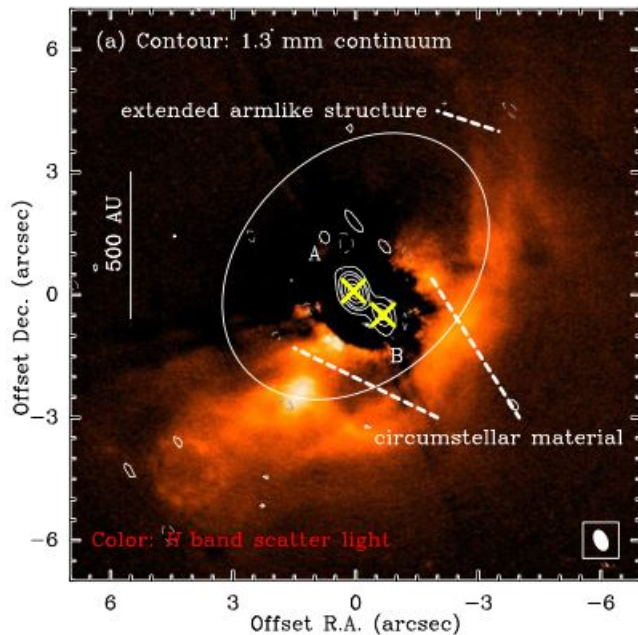
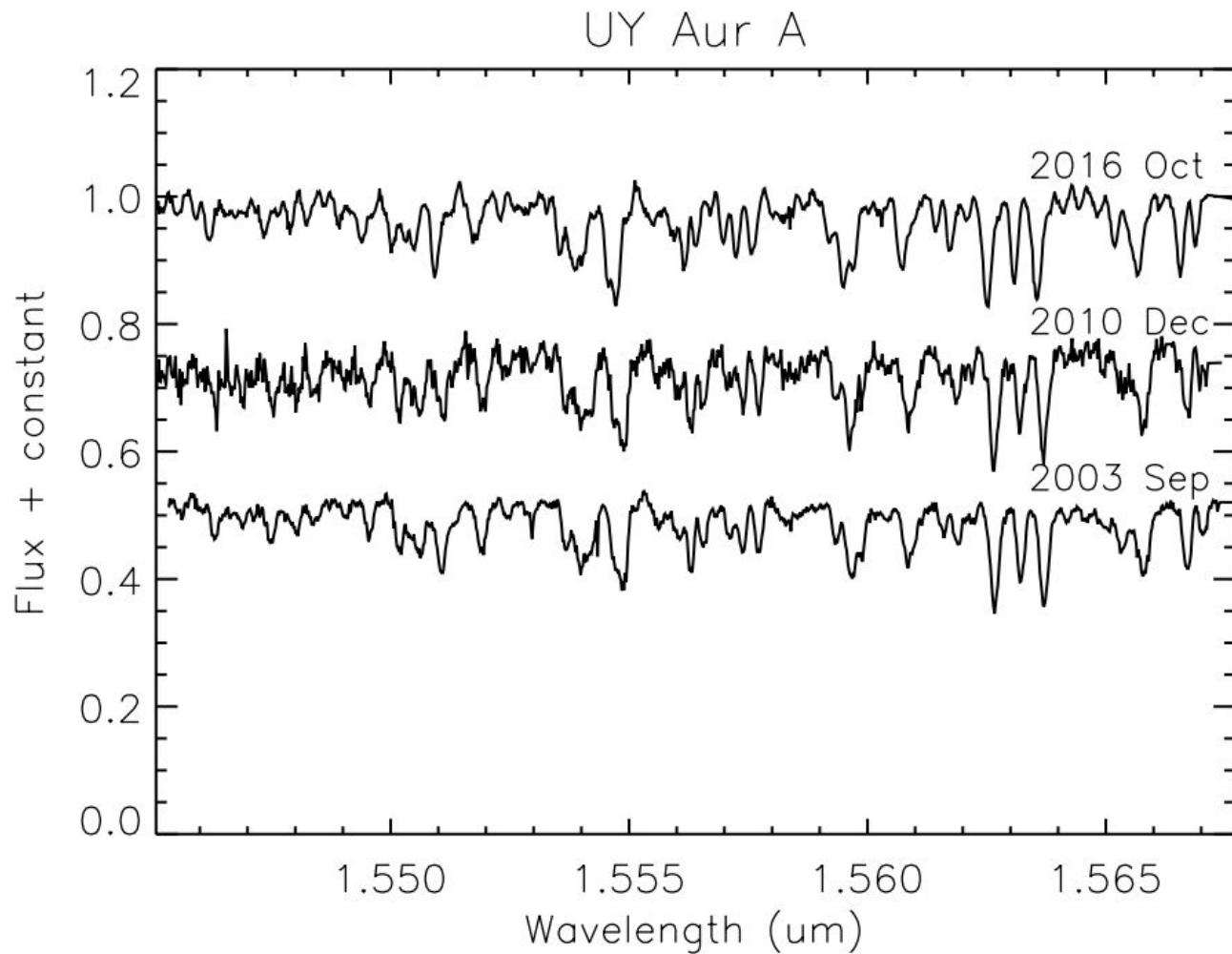


Image from Tang et al, 2014 (Fig 1 a/b)

UY Auriga A



UY Auriga B?!

