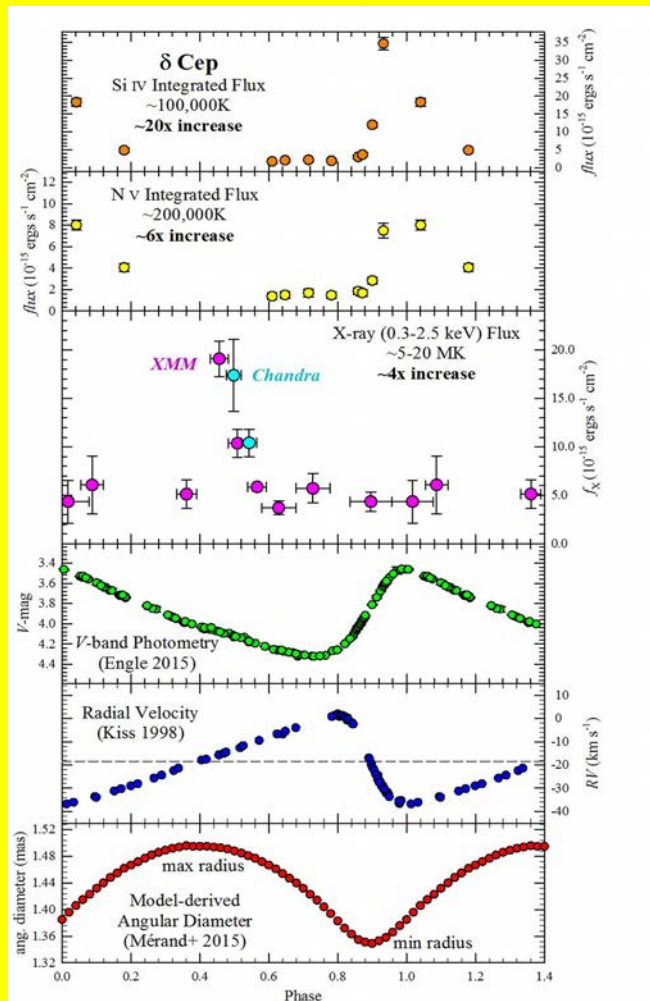


Should Radio Observations Detect Cepheids?

Evans, Matthews, Engle, Guinan, Neilson, Marengo, Wolk, and Guenther,



**X-rays are seen in Cepheids at phases after maximum radius

**Mechanism: Pulsation shock? Flare?

**May be part of a progression outward from the

- photosphere: X-rays ($0.13 R_{\text{star}}$), Circumstellar Envelopes (CSEs $2 R_{\text{star}}$), Bowshock

**Questions: Mass-loss? IR effects?

**Radio Observations: winds or flares?

So far probably not deep enough