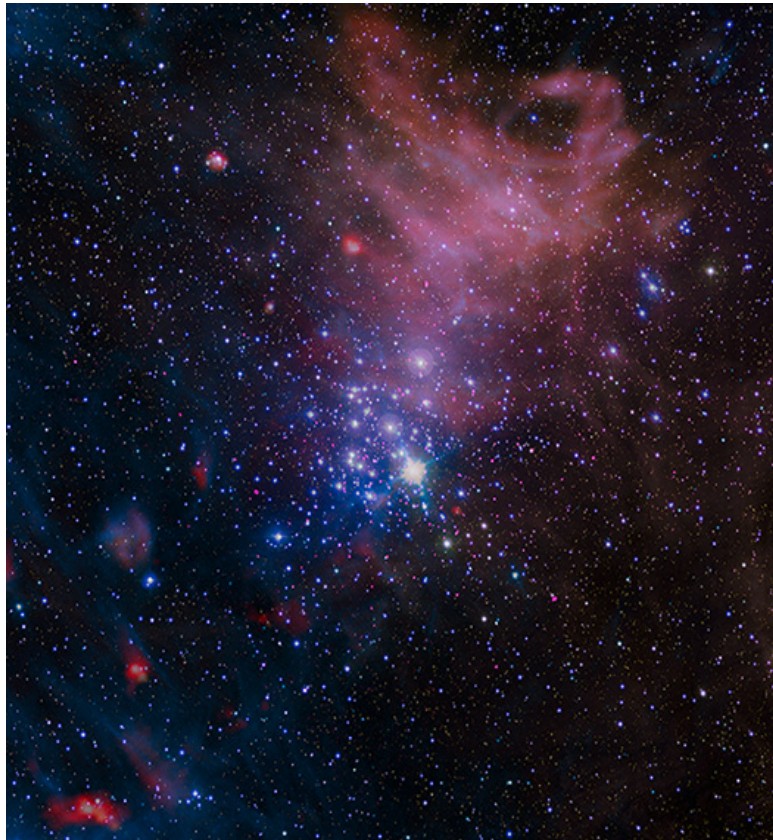




Chandra Science Highlight

Chandra Sees Stellar X-rays Exceeding Safety Limits



- A new study of 10 star clusters with ages between 7 million and 25 million years old provides insight into how magnetically active Sun-like stars are when they are young.
- The research combined data from NASA's Chandra X-ray Observatory with ESA's Gaia mission.
- The results showed relatively constant stellar activity for the first million years and then a decline.
- This gives scientists a window into how X-rays from young stars could partially or completely evaporate the atmospheres of planets orbiting them.

Distance estimate: 8,300 light-years.

Credits : X-ray: NASA/CXC/Penn State Univ./K. Getman et al.; Infrared: ESA/NASA JPL-Caltech/Herschel Space Observatory/JPL/IPAC; NASA JPL-Caltech/SSC/Spitzer Space Telescope; Optical: MPG/ESO/G. Beccari

Instrument: ACIS

Reference: Getman, K., et al., 2022, ApJ, 935, 43;
[arXiv:2203.02047](https://arxiv.org/abs/2203.02047)

***Caption:** In this composite image of the star cluster NGC 3293, X-rays from Chandra (purple) have been combined with infrared data from Herschel (red) and Spitzer (blue and white), and optical data from the MPG/ESO 2.2-meter telescope in La Silla, Chile, appearing as red, white, and blue. The team found that the X-ray brightness of young Sun-like stars in NGC 3293 and 9 other star clusters is roughly constant for the first few million years, and then fades from 7 to 25 million years of age. This decrease happens more quickly for heftier stars.*

(The photo album is at: <https://chandra.si.edu/photo/2022/ngc3293/>)

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Astrophysical Observatory



December 2022