



**Chandra X-Ray
Observatory Center**

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GRB 010222: A gamma-ray burst, one of the most intense explosions in the universe, observed by Chandra on February 22, 2000.

Credit: NASA/CNR/L.Piro et al.

Data from this Chandra image suggest that gamma-ray bursts originate in regions of star formation. Several theories exist about what causes gamma-ray bursts, including a hypothesis that a massive star explodes, creating a blast of material that expands at relativistic speeds like an inflating bubble. The latest Chandra data obtained suggest that these expanding bubbles of material are braking against a wall of very dense gas. This could imply that gamma-ray burst explosions occur in the same stellar environment that originally produced the massive star itself, and perhaps may be a trigger for even more star formation.

Scale: Image is 5 x 4 arcmin.

Chandra X-ray Observatory ACIS Image

CXC operated for NASA by the Smithsonian Astrophysical Observatory