

## Cassiopeia A

Astronomers have discovered evidence that a bizarre, friction-free state of matter exists in the neutron star at the center of the famous Cassiopeia A supernova remnant. Chandra observations spanning over ten years have revealed a 4% decline in the temperature of this neutron star, an unexpectedly rapid cooling. When combined with other data and theoretical models, this quick drop in temperature suggests that the center of the neutron star contains superfluid and superconducting material. Cassiopeia A has been studied extensively throughout Chandra's lifetime and continues to reveal surprising discoveries and important science.

## December 2012