W28: A Mixed Morphology Supernova Remnant

- W28 is an example of a mixed-morphology supernova remnant with an outer shell of radio emission, and a center filled with thermal X-ray emission.
- This morphology is thought to be due to interaction of the supernova shock wave with clouds of dust and gas surrounding the presupernova star.
- W28 is unusual among mixed morphology supernova remnants in that a two-temperature hot plasma model with a soft (~3MK) and a relatively high temperature (>10MK) is needed to fit the spectrum.
- Compared to the hard X-ray emission, the soft X-ray emission from the center of W28 is associated with smaller scale structure, indicating significant cooling at the site of interaction with adjacent clouds.

Reference: J. Keohane et al. 2008 American Astronomical Society, AAS Meeting #212, #13.02