ESO 137-001: X-ray Tails from Galaxy Plunging into the Core of the Galaxy Cluster A3627

The tails are produced by gas stripped from the galaxy as it moves through the hot gas in the central regions of the galaxy cluster A3627.

The brightest tail extends for about 260,000 light years.

The double tail structure may have been produced by the stripping of gas from the two major spiral arms in the galaxy.

Stripping of gas from galaxies can affect the evolution of the galaxy by removing the raw material for star formation.

The H-alpha and X-ray data show evidence for star formation in the tails – the first unambiguous evidence that star formation can occur in gas stripped from galaxies.


Chandra X-ray Observatory ACIS
Distance Estimate: About 230 million light years

This composite image shows two long tails of X-ray emitting gas trailing behind the galaxy ESO 137-001 (bright region at the head of the tail). X-rays detected by Chandra are in blue, broadband optical emission in yellow and optical H-alpha emission from hydrogen atoms in red.