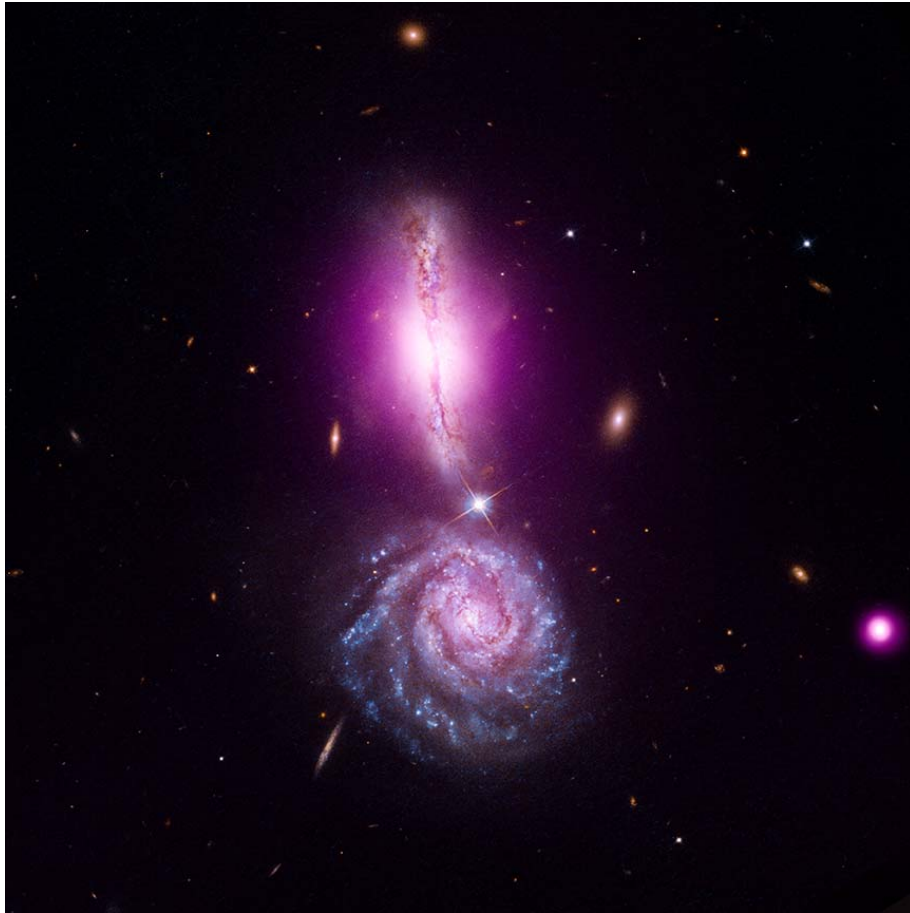




Chandra Science Highlight

VV340: A Pair of Interacting Galaxies in the Early Stages of a Merger

Chandra X-ray Observatory ACIS image



A Multiwavelength composite image of VV340, a.k.a. Arp 302, combines data from Chandra (purple) and the Hubble Space Telescope (red, green and blue).

- VV340 consists of two large, spiral galaxies, one face-on (VV340 South) and one edge-on (VV340 North) that appear to be in the early stages of a merger.
- The edge-on orientation VV340 North obscures an actively growing supermassive black hole that is detected in X-ray and infrared light, but is hidden at optical wavelengths by the disk of the galaxy.
- VV340 South is also forming stars at a rapid rate, but shows no sign of an active supermassive black hole.

References: Armus, L. et al, 2009, PASP, 121, 559;
arXiv:0904.4498

Credit: X-ray NASA/CXC/IFA/D. Sanders et al; Optical
NASA/STScI/NRAO/A. Evans et al

Distance Estimate: About 450 million light years ($z=0.0337$)
Scale: Image is 2.2 arcmin across (about 285,000 light years)