
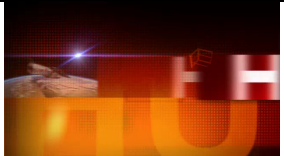






<p>Hubblecast Episode xx: Galaxy hits the bullseye</p>		
<p>00:00 [Narrator] Bright pink nebulae almost completely encircle a spiral galaxy in this NASA/ESA Hubble Space Telescope image of NGC 922.</p> <p>The ring structure and the galaxy's distorted shape result from a smaller galaxy scoring a cosmic bullseye, hitting the centre of NGC 922 some 330 million years ago.</p>		
<p>00:49 [Narrator] Hubble's image of NGC 922 shows that the galaxy is far from being an ordinary spiral. Its arms are disrupted, a stream of stars extends out into space, and a bright ring of nebulae encircles the core.</p> <p>Observing NGC 922 with NASA's Chandra satellite reveals more chaos, in the form of ultraluminous X-ray sources dotted around the galaxy.</p>		
<p>01:22 [Narrator] NGC 922's unusual form today has its origins hundreds of millions of years ago. At that time, a smaller galaxy plunged right through the heart of NGC 922.</p> <p>Although it's outside Hubble's field of view now, images from a survey telescope on the ground show the interloper shooting away from the scene of the crash.</p>		
<p>01:52 [Narrator] As the small galaxy passed through the middle of NGC 922, it set up ripples that disrupted the clouds of gas and triggered the formation of new stars.</p> <p>The radiation from these new stars in turn lit up the gas.</p> <p>The bright pink colour of the resulting nebulae is a characteristic sign of this process, and it is caused by excited hydrogen gas, the dominant element in interstellar gas clouds.</p> <p>It's a similar process to that used in neon signs here on Earth.</p>		

<p>02:28 [Narrator] In theory, if two galaxies are aligned in just the right way, with the small galaxy passing right through the centre of the larger one, the ring of nebulae will form a perfect circle.</p> <p>But more often, the two galaxies are slightly offset, forming a circle like this one, which is noticeably brighter on one side than on the other.</p>		
<p>02:46 [Narrator] These objects, called collisional ring galaxies, are relatively rare in our cosmic neighbourhood. Although collisions and mergers are quite common, the precise alignment and ratio of sizes necessary to form a ring is not.</p> <p>Only a few are known in our cosmic neighbourhood, and NGC 922 and the Cartwheel Galaxy, also snapped by Hubble, are the best-known examples.</p>		

ENDS 04:20