

## **Fermi bubbles: what do we know about them and where do they come from?**

*Thursday, 14 May 2009 15:20 (25 minutes)*

The Fermi bubbles are two gamma-ray lobes extending up to 55 degrees above and below the Galactic center. The Fermi bubbles are unique in that, in contrast to lobes in other galaxies, they were discovered in gamma rays, rather than radio waves or X rays. In the talk I will overview the observations of the Fermi bubbles in gamma rays, X rays, UV and radio waves. I will present a recent analysis of the Fermi bubbles near the Galactic plane based on Pass 8 Fermi LAT data. In spite of the observational progress, both the nature of the gamma-ray emission and the origin of the bubbles are still unknown. Possible processes that can create the bubbles include AGN-like activity of the supermassive black hole at the center of our Galaxy or a period of starburst activity near the Galactic center.

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