

# Observations of Fermi bubbles and Evidence for Past Activities in the Galactic Center

*Monday 26 August 2013 12:00 (30 minutes)*

Data from the Fermi-LAT revealed two large gamma-ray bubbles, extending 50 degrees above and below the Galactic center, with a width of about 40 degrees in longitude. I will show multi-wavelength studies of this so-called Fermi bubble structure including radio, microwave, and X-ray. Furthermore, we recently found evidence for large-scale collimated jet-like structure from Fermi-LAT data, penetrating through the bubbles from the Galactic center. This new piece of evidence provides further support of past activities in the Galactic center.

**Presenter:** SU, Meng (MIT)

**Session Classification:** Plenary