

TRACCIA 1

- 1) **Illustrare il diritto di accesso con particolare riferimento al tema della tutela della privacy;**
- 2) **Descrivere il Controllo Preventivo e Successivo della Corte dei Conti;**
- 3) **Illustrare le tecniche per la rilevazione e la verifica dei costi nell'ambito dei progetti;**
- 4) **Elencare i browser più diffusi e in quali ambienti vengono utilizzati;**
- 5) **Traduzione testo: Probing the Milky Way's violent history;**

Giuseppe Gubelli



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Probing the Milky Way's violent history

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Active galactic nuclei (AGN) are one of the most studied astrophysical objects. Known to be the brightest persistent sources of photons in the radio to gamma-ray spectrum, they are also thought to be responsible for high-energy cosmic rays and neutrinos. As such, they play an important role in the universe and its evolution. AGNs are galaxies in which the supermassive black hole at their centre is accreting matter, thereby producing violent jets responsible for the observed emissions. While our galaxy has a supermassive black hole at its centre, it is currently not accreting matter and therefore the nucleus of the Milky Way is not active. Strong hints of past activity were, however, discovered using the Fermi-LAT satellite in 2010. In particular, the data showed two giant gamma-ray emitting bubbles – now known as the Fermi bubbles – extending from the galactic centre and covering almost-half of the sky (see image). The exact origin of the giant plasma lobes remains to be understood. However, their position and bipolar nature point towards an origin in the Milky Way's centre several million years ago, likely during a period of high activity in the galactic nucleus. A new study led by Trisha Ashley from the Space Telescope Science Institute, Baltimore, brings a fresh perspective on the origin of these structures. Her team focused on the chemical composition of gas clouds inside the bubbles using UV absorption data collected by the Hubble Space Telescope and Green Bank Telescope. Based on their location and movement, these high-velocity clouds had been assumed to originate in the disk of the Milky Way before being swept up as the bubbles were emitted from the galactic centre. However, measurements of the clouds' elemental makeup cast doubt on this assumption.