Scientists Reveal Cosmic Rays Driving Winds in Triangulum Galaxy M33

Galactic winds are primary feedback processes originating in the disk of galaxies and extending to the halo and intergalactic medium. They can remove cool gas from a galaxy and hence are considered as the main cause of star formation quenching over cosmic time. Supernova explosions and active galactic nuclei (AGN) can set powerful winds but their role in quenching star formation is complicated by the fact that their winds can accumulate gas in galaxy disks triggering formation of new stars. Thanks to the radio observations with the *Karl G. Jansky Very Large Array*, an international team of researchers led by **Fatemeh Tabatabaei** from Institute for Research in Fundamental Sciences-IPM have found evidence for cosmic rays as an alternative agent of galactic winds in our neighbor galaxy Triangulum (M33). This important finding is published today by Monthly Notices of the Royal Astronomical Society journal and reported by Max Planck Institute for Radio Astronomy (MPIfR) as well as National Radio Astronomy (NRAO) as press release in parallel.

The link to MPIfR press is:

https://www.mpifr-bonn.mpg.de/pressreleases/2022/14

https://www.mpifr-bonn.mpg.de/pressreleases/2022/14

Here is the link to the article:

https://doi.org/10.1093/mnras/stac2514

This is the link to the NRAO 's news:

https://public.nrao.edu/news/cosmic-rays-galaxys-winds/