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The Galactic Center Synchrotron Filaments

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It has been more than 40 years since magnetized radio filaments were first reported toward the Galactic center (GC), providing the earliest evidence of energetic activity in this region. Since then, a large population of synchrotron-emitting filaments have been discovered. In particular, the recent MeerKAT survey has provided an invaluable resource for studying the extreme environment of the GC and has increased the known population of filaments by an order of magnitude. In this talk, I will discuss the statistical properties of the GC filaments, compare them with filaments recently found in the intracluster medium (ICM), and examine if the GC filaments could be the source of high cosmic-ray ionization rate traced from H3+ measurements.

Collaboration(s)

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