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## The MeerKAT HI View of NGC 1365, the Great Barred Spiral Galaxy

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The interstellar medium (ISM) regulates star formation, a key driver of galaxy evolution. Understanding how atomic and molecular gas, dust, and metals interact is crucial for deciphering these processes.

I present high-resolution MeerKAT HI observations of NGC 1365, the Great Barred Spiral Galaxy in the Fornax cluster, and compare them with ALMA molecular gas, DustPedia dust, and gas-phase metallicity data. The analysis reveals new insights into the interplay between ISM components and suggests that HI may play a more significant role in regulating star formation than previously recognized.

These observations demonstrate the power of high-sensitivity, high-resolution HI studies, providing a critical benchmark for SKA surveys and advancing our understanding of the cosmic evolution of galactic gas.

### Topics

Galaxy Evolution & AGN

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