

Radio galaxy harassment caught in the act

Abstract

While AGN negative feedback on star formation has become a key ingredient on cosmic structure formation, the importance of AGN positive feedback, induced star formation from jet-cloud interaction, has also be realized. There are few direct examples of AGN positive feedback in the nearby universe. Recently, we have discovered potentially the closest example of AGN positive feedback in a nearby galaxy group where the radio jet of the central galaxy hits a spiral galaxy 154 kpc away in projection to trigger star formation at the side of interaction! As a rare and unique example important to study AGN positive feedback and star formation conditions, we request a MeerKAT observation as the key missing data to unambiguously establish the connection from both the radio continuum and HI data. For its proximity and unique properties compared with known examples of AGN positive feedback, this new object can potentially become a signature example of AGN positive feedback.