

Radio emission from dusty galaxies observed by AKARI

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ABSTRACT

It is a long known fact that there exists a tight correlation between far-infrared and radio emission both for galaxies hosting active galactic nuclei and for normal galaxies. The origin and mechanism of this correlation are not yet fully explained. We probe radio-infrared correlation for a sample of extragalactic sources constructed by the cross-correlation of AKARI/FIS All-Sky Survey Bright Source Catalogue and NRAO VLA Sky Survey. All objects of our sample were identified as galaxies in NED and SIMBAD databases, and a part of them is known to host active galactic nuclei. We compare the ratio of radio and infrared emission from different types of dusty galaxies, discuss the FIR/radio correlation as seen by AKARI, make a comparison to the previous results, and discuss possible mechanisms behind this phenomenon.

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