Radio-Jets and Active Galactic Nuclei in Gas-Poor Elliptical Galaxies

Students:

Brian Koch (Hereford High School), Maxwell Cooper (Hereford High School)

Teachers:

Jeremy Smith (Hereford High School), John Pisanic (Damascus High School)

Quarknet Mentor:

Bruce Barnett (Johns Hopkins University)

Our research was devoted to the identification and analysis of gas-poor, elliptical galaxies that, for whatever reason, possess an Active Galactic Nucleus despite their apparent lack of matter that may be accreted. Galaxies containing Active Galactic Nuclei and strong radio-signatures (typically in the form of jets protruding from the nucleus) tend to have large accretion disks and high concentrations of gas and dust with which the black hole is fueled; conversely, gas-poor galaxies very rarely have active nuclei. However, this relationship between abundance of gas and activity of the galaxy does not always hold true, as evidenced by the candidates we have found. We searched for these candidates using a combination of the Hubble Legacy Archive imagery database; the Sloan Digital Sky Survey spectrometry and imagery; and FIRST (Faint Images of the Radio Sky at Twenty-Centimeters) radio imagery. The goal of our work was not to make any specific determination, but rather compile a catalogue to be used as a resource for further studies in the matter. We plan to continue this compilation until we can be certain we have enough data to make verifiable determinations regarding the nature of the galaxies in question

At "The goal of our work was not to make any specific determination, but rather compile... any specific studies in the matter," consider changing the word matter to something a little more specific (like the word galaxies).

I was referring to the matter like the subject area, not the matter like, matter antimatter..

Define "this" in line 5

there is no this in line 5.. you goon.. -koch