

Black Holes

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Black Holes and its role in the evolution of the galaxies

The existence of Black Holes and its relationship to the existence of Galaxies have always been an interesting concept to scientists. Our purpose is to find out how Black Holes maintain balance with Galaxies, especially our own Milky Way Galaxy.

Supporting Evidence/Theories

According to an article “By looking at black holes, we can learn something about the evolution of galaxies and especially about the evolution of dwarf galaxies,” and perhaps even about the beginning of the universe, Zaw explained. “These galaxies should act more like the galaxies that were present earlier in the universe closer to the Big Bang.”

Methods & Findings

Research process consists of articles of data online. Scientists discovered Supermassive black holes has a connection called M- Sigma relation that connects them to their host Galaxies. The Milky Way occupies a galactic sweet spot, with a black hole that appears to act out just often enough to stir things up and keep the galaxy's stellar population at a perfect simmer. Our Galaxy has a Black hole called Sagittarius A.

Images/Charts



Astronomers Discover LB-1 Stellar Black Hole That Shouldn't Even Exist in the Milky Way Galaxy. (2019, November 30). TechEBlog.
<https://www.techeblog.com/lb1-stellar-black-hole-milky-way-galaxy/>

Analysis/Limitations

Our findings help us understand why black holes are important, they show us how galaxies evolve over time and help scientists study the world outside of our planet. Black holes also provide us with a unique window into the universe beyond our own planet. Because they are so massive and powerful, black holes can generate some of the most energetic phenomena in the universe, such as gamma-ray bursts and quasars. By observing these phenomena, scientists can learn more about the physics of the universe and how it works.

Images/Charts



Darsh. (2017, February 15). *Researchers Find Evidence Of Intermediate-Mass Black Hole, Universe's Greatest Mystery Finally Solved.* MobiPicker.
<https://www.mobipicker.com/researchers-find-evidence-intermediate-mass-black-hole-universes-greatest-mystery-finally-solved/>

Implications

The relevance of these findings show that Black holes indeed help shape galaxies and keep a balance. It proves that galaxies and black holes have a relationship with one another that takes us back millions of years ago to where we are today. Even though the relationship is a complex one, the Milky Way Galaxy's Black hole continues to make a contribution that benefits the galaxy.

References

- Dhabi, N. A. (2019, April 17). *Why are Space Scientists so Interested in Black Holes?* New York University Abu Dhabi.
<https://nyuad.nyu.edu/en/news/latest-news/science-and-technology/2019/april/why-are-space-scientists-so-interested-in-black-holes.html>
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