How The Galaxy Got Its Jets

Part of the GLAST Pop Up Display
How the Galaxy Got Its Jets

In a time long ago and far away, space was filled with families. These were not families as we know them on Earth. They were giant families of different types of matter with distinct characteristics.

Let's get acquainted with the families.

Young Hydrogen
I am Young Hydrogen. I like to make myself invisible and watch what everyone else in the galaxy is doing.

Helium
Helium is my name. I am a retired physicist. I am neutral and just like to hang out around the galaxy.

Miss Asteroid
I am Miss Asteroid. Be alert! Asteroids can be violent and smack into things.

Planetary Society
We, the Planetary Society, are the smallest of the families, but we are important. We study other families and try to make sense of their travel.

Star Sisters
We are the Star Sisters, a bright, long-lived family. Some of us are nice and cool Stars, and some of us are hot.

Comet Band
We are icy and travel fast. You may not see us very often.

Mighty Galaxy Community
We are the Mighty Galaxy Community, a very strong, powerful group.
The families of matter traveled through space and moved freely from one place to another. Everything was fine until they came too close to each other...

It is not right to keep fighting every time we get close to each other.

I am so tired of all this arguing...

I have an idea! Let's get together and talk about our problems!

That's a good idea, but we still have a problem. There is no place big enough for all of us to have a meeting.

So the fighting and arguing started again.
why don’t we have smaller meetings to come up with some ideas for the rules.

Let’s use our place!

We are hot and cool, a perfect place for a meeting.

NO. It should be here!

Suddenly everyone heard a thunderous voice.

As the argument was taking place, young Hydrogen found refuge behind Helium who became irritated with everything.

Since no families have ever lived at the center of galaxies, the meetings must be held there.
At the center of each galaxy there was a mysterious Black Hole powerful enough to pull in and trap everything that gets close to its edge. Black Holes even pull in light, which is why they are so black. As the families got near the event horizon, they wouldn’t be able to escape!
The Black Hole saw that the families could not get along, and did not want them to come any closer to the center of the galaxy. So before they could get inside the event horizon, it scrambled them up and tore them apart, sending them tumbling away through the galaxy as a jet of whirling gas and light.

Come back when you all behave!

The families in our Milky Way galaxy have found a way to get along. However, even today there are still some galaxies with families of matter who keep arguing...

Sometimes the winds from these black holes blow jets of gas and light all the way to Earth...

When the jets arrive on Earth, the light is studied by scientists who wonder what causes the galaxies to send out such big jets of matter and energy. But you know what's really happening!

And that is how the galaxy got its jets.
Components of the Pop Up Display
Sponsors

GLAST: Gamma-Ray Large Area Space Telescope

Planned for launch in 2007

GLAST has two instruments:

– Large Area Telescope (LAT)
– GLAST Burst Monitor (GBM)

GLAST will look at many different objects within the energy range of 10keV to 300GeV.