

Episode 4



1
00:00:00,000 --> 00:00:05,333

■
So far, we've learned a lot about smaller black holes,
but why let them have all the fun?

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00:00:05,333 --> 00:00:12,000

Larger ... well, MUCH larger black holes can be just as social,
but their situation is ... a little bit different.

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00:00:12,000 --> 00:00:17,333

If we take a closer look, we can see that some of these
black holes really LOVE being the center of attention.

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00:00:17,333 --> 00:00:23,500

Because they're so massive, they can gather up not just a bunch of
gas and dust, but also, well, friends!

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00:00:23,500 --> 00:00:30,250

In fact, they can pull in a LOT of company,
including stars, neutron stars, and even smaller black holes!

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00:00:30,250 --> 00:00:33,333

You'll often find these social gatherings in the centers of galaxies,

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00:00:33,333 --> 00:00:38,833

where some of the black holes even launch giant,
powerful jets into space, just like their smaller cousins.

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00:00:38,833 --> 00:00:46,250

Now, what about the black hole's friends? Well, if they're far away,
many of them are content to simply zoom around in a long, lazy dance.

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00:00:46,250 --> 00:00:50,083

However, as some get closer, things can get ...
a little weird.

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00:00:50,083 --> 00:00:55,083

For example, if some stars get too close, they can potentially
get completely pulled apart!

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00:00:55,083 --> 00:01:00,750

In other cases, if the friend is a neutron star or another black hole, and IF it somehow gets REALLY close,

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00:01:00,750 --> 00:01:04,083

it can get sent off on a bizarre-looking dance around the black hole ...

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00:01:04,083 --> 00:01:07,916

and eventually crash into (and merge with) its big companion.

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00:01:07,916 --> 00:01:12,750

Of course, these are just a few examples, and depending on the size of the friends ... and the black hole,

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00:01:12,750 --> 00:01:15,500

things might actually, uh ... be ... erm ...

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00:01:15,500 --> 00:01:18,166

Ah, friendship! So complicated.

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00:01:18,166 --> 00:01:25,583

Anyway, if you're looking for a fun night out with lots of company, grab your telescopes and look no further than these giant black holes.