



## Outtakes #5: Crash Course Astronomy

### Outtakes

<https://youtube.com/watch?v=hvTg0LZUAeY>

<https://nerdfighteria.info/v/hvTg0LZUAeY>

The universe will be dark. Dark to human eyes at least - assuming that we have eyes in a trillion years or we're even around that long.

Wow. That yeah, I was trying to be a little more jocular.

\*into music\*

I am rolling.

Are you? Are you hating?

\*singing\*

Last episode! AH! \*laughter\* Don't have to work with these dorks anymore.

\*off screen\* I do.

That meant that the gravity of the galaxies was constant throughout the disc.

Klebesadel. Klebesadal? I don't know how to pronounce his name either. This is great. \*laughter\*

I don't mention Joel Tartar in this. That's too bad. That's okay. That's okay.

\*off screen\* Promised we would get to her later.

I said we'd get to that later. I was careful about that actually.

Yeah, that works. I'm a writer. I write stuff. Sometimes I write stuff while I'm sitting here. I didn't actually write anything. I just change words. I said stuff. I'm a saider.

In 1973, Olsen and Klebesadel went public. Publishing a dater, publishing a dater. Dating a publisher. Now I got to say Klebesadel again.

Physicist seeven, physicists sbhhs... Physicist Steven Hawking worked out the math of black holes. Combined with quantum mechanics, and discovered that under some circumstances. Good I get to say this again.

Dance, dance. Pump up the volume.

\*making strange mouth sounds\*

Abcdefg Arby's

So the folks at SETI scan the skies at various radio wavelengths, hopenig, hopenig?

When the universe got its start, it was unfathomably, unfathomably... it's a good word...just hard to pronounce.

This then tells you how fast the universe is expanding. \*repeats in a goofy voice\*

How slow? I feel like a dog. \*repeats how slow in goofy voice\*

The answer is yes, well neeeh. Well neeeh, we neeeh.

And getting here is a huge pain in the butt - or whatever aliens use to excrete waste matter. This is the last episode, I can get a little blue.

\*offscreen\* Get those butt jokes in while you can.

Astronomy after dark - oh wait.

So if you see one star in a globular that's twice as bright as another, it \*choking noises\* \*offscreen\* Do we have an astronomer down? Astronomer down.

By radiating away gravitational waves...the gravitational waves... the gleventional waves

And with the discovery of dark matter, that meant the universe should be slowing down alallalalaa showling down

GRB's are dangerous for much...GRB's are dangerous. GRB's are dangerous. GRB's arrrrrrrr. GRB's abcdefg

\*offscreen\* Looking angry Phil. Yeah, good.

As telescopes got better, very tiny ation. Ugh very tiny ations

The most violent and energetic explosions the universe is capable ablaghagadshgh bbbblh

\*offscreen\* Sure

\*offscreen\* You said like instead of light.

I did not.

\*offscreen\* Yeah, you did.

You're a liker.

\*offscreen\* I am.

Likers gonna like.

Heat them more and even protons and neutrons will collide hard enough to shatter in to their constituents sub atomic particles. \*giant breath\*

And to all of you, who have watched Crash Course Astronomy All I have to do is thank people.

And to all of you, who have watched Crash Course Astronomy, Don't Forget to be Awesome.

\*offscreen\* Whooooo

\*outro music\*