

Alien Contact 'Likely' in 1,500 Years, Astronomer Says

A Cornell student will present an analysis in San Diego on Friday that contact with intelligent life in our galaxy becomes likely in about 1,500 years.

"We haven't heard from aliens yet, as space is a big place – but that doesn't mean no one is out there," said Cornell student Evan Solomonides. "It's possible to hear any time at all, but it becomes likely we will have heard around 1,500 years from now."

The thesis might appear to run counter to the claim of a chief NASA scientist who last year [boldly predicted](#) that humans would discover "strong indications of life beyond Earth within a decade and...definitive evidence within 20 to 30 years."

Solomonides's research deconstructs the Fermi Paradox and pairs it with the Mediocrity Principle (the idea that Earth is not particularly special in our galaxy).

But how did he arrive at the 1,500 years figure? Here is what the university's [press release said](#):

Hunting for extraterrestrials means sending out signals like television broadcasts, for example. As Earth's electronic ambassador, TV and radio signals are sent into space as a byproduct of broadcasting. These signals have been traveling from Earth for 80 years at the speed of light. For aliens receiving these transmissions, they would likely be indecipherable, said Solomonides, as the extraterrestrials would need to decode light waves into sounds, then parse 3,000 human languages to grasp the message.

Nonetheless, Earth's broadcast signals have reached every star within about 80 light years from the sun – about 8,531

stars and 3,555 Earthlike planets....

Combining the equations for the Fermi Paradox and the mediocrity principle, the authors [sic] suggests Earth might hear from an alien civilization when approximately half of the Milky Way Galaxy has been signaled in about 1,500 years.

My hunch is that Solomonides probably used some wickedly impressive math to arrive at this conclusion. But the connection to Fermi's Paradox seems a bit tenuous.

First, the Fermi Paradox does rest on the assumption that human light waves and signals will reach alien civilizations, and those civilizations will decipher and answer them. Take a look at what the Fermi Paradox actually said, via [SETI](#):

Fermi realized that any civilization with a modest amount of rocket technology and an immodest amount of imperial incentive could rapidly colonize the entire Galaxy. Within ten million years, every star system could be brought under the wing of empire. Ten million years may sound long, but in fact it's quite short compared with the age of the Galaxy, which is roughly ten thousand million years. Colonization of the Milky Way should be a quick exercise.

So what Fermi immediately realized was that the aliens have had more than enough time to pepper the Galaxy with their presence. But looking around, he didn't see any clear indication that they're out and about.

Interstellar signals sent by humans had nothing to do with the paradox. Fermi was talking about aliens *visiting* Earth.

But let's lower the bar a little bit. Interstellar travel could be trickier than anyone realizes, after all. Why have we not heard anything from outer space?

Aliens would not need to receive a message from "the third

planet around a tediously boring star,” as Solomonides describes us, to send their own. Why would alien civilizations not be blasting out signals similar to our own?

And a final point: If approximately half of the Milky Way Galaxy will have been signaled in 1,500 years, will it not require hundreds of more years to get answers in return from these civilizations, assuming they exist? If so, why is it likely that we will hear back from these civilizations “around 1,500 years from now”?

Perhaps all of this will be explained in Solomonides’ presentation—“A Probabilistic Analysis of the Fermi Paradox”—tomorrow. (It wouldn’t be the first time a press release presented a tortured interpretation of academic research.)

But at first blush, this research doesn’t seem to offer any new insights on the big question: [Why have we heard nothing?](#)

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