

Team of physicists suggests LIGO could be used to detect giant alien spacecraft

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A team of physicists affiliated with several institutions in the U.S. has collaborated on a paper that discusses the possibility of using the Laser Interferometer Gravitational Wave Observatory (LIGO) to search for evidence of aliens piloting huge spacecraft around the Milky Way. They group has posted their paper on the *arXiv* preprint server.

Over the past several decades, astrophysicists and sci-fi enthusiasts alike have grown increasingly frustrated with mankind's inability to detect the presence of life anywhere in the universe other than planet Earth.

Scientists have noted that based on the billions of planets that have been found in habitable zones around the universe, and the fact that life does exist in one place, on Earth, there should be life somewhere else, too.

The problem, now referred to as the Fermi paradox, is that scientists have yet to find even the tiniest shred of evidence for it. Prominent scientists have increasingly begun calling for new and more exotic ways to search.

In this new effort, the researchers note that science has advanced to the point that gravity waves can be detected by technology such as LIGO. They further suggest that it is not beyond the realm of possibility that [aliens](#) piloting spacecraft could leave gravity waves in their wake that could be detected here on Earth using such technology.

Intrigued by their own idea, the researchers imagined the factors that might be involved for such a scenario to unfold. First, they factored the size of such a craft. They found it would have to be really big to generate gravity waves strong enough to reach Earth—perhaps the size of Jupiter.

It would also have to be moving really fast—their calculations showed approximately 1/10 the speed of light. And it would have to be reasonably close—say about 326,000 light-years from Earth. They note that under such conditions, if they were to arise, researchers at LIGO should be able to spot the gravity waves generated.

The researchers also note that if aliens are using warp drives, scientists on Earth should be able to spot them, too, using the same technology, because such a craft would also generate [gravity waves](#).

More information: Luke Sellers et al, Searching for Intelligent Life in Gravitational Wave Signals Part I: Present Capabilities and Future Horizons, *arXiv* (2022). [DOI: 10.48550/arxiv.2212.02065](https://doi.org/10.48550/arxiv.2212.02065)

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