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Astronomers Intrigued by 25 Mysterious Repeating Radio Signals From Deep Space

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We still have no idea what's behind them.

CHIME Nor Reason

A team of astronomers has discovered 25 [fast radio bursts](#) (FRBs), which are mysterious and extremely powerful pulses of radio waves that repeat in complex patterns, [Universe Today reports](#).

The astronomers observed the repeating FRBs in data captured between 2019 and 2021 by the Canadian Hydrogen Intensity Mapping Experiment (CHIME) radio observatory in British Columbia, Canada.

Ever since the first FRB was detected back in 2007, astronomers have been trying to get behind the source of the perplexing phenomenon. To this day, we can only hazard a guess as to why they occur, with [some arguing](#) that pulsars, which highly magnetically charged neutron stars, may be the source.

The new data will likely only add to the mystery in the short term. But it could also bring us one step closer to an answer.

Active Bursts

Using an algorithm, Ziggy Pleunis, a postdoctoral fellow at the University of Toronto and lead author of a [yet-to-be-peer-reviewed paper](#), and his colleagues discovered 25 new repeating sources while examining a [previously created sample catalog of FRBs](#), which contained more than 500 detected events by CHIME.

Up until now, only 29 out of a total of 1,000 FRBs detected to date were found to be repeating, according to *Universe Today*, which means the new data could nearly double the number of known repeating FRBs.

"When we carefully count all our fast radio bursts and the sources that repeat we find that only about 2.6 percent of all fast radio bursts that we discover repeat," Pleunis told the publication. "For many of the new sources we have detected only a few bursts, which makes the sources quite inactive. Almost as inactive as the sources that we have only seen once."

"It is possible that all fast radio burst sources eventually repeat, but that many sources are not very active," he added.

Many of these repeating patterns are still proving extremely difficult to classify, making them even more elusive.

But as astronomers build out a rapidly increasing dataset of these bursts, in addition to some extremely large radio

telescopes being built like the Square Kilometer Array Observatory in Australia and South Africa, we could soon finally get some answers.

Updated to note that the Square Kilometer Ray also includes observatories in South Africa.

READ MORE: [Astronomers Find 25 Fast Radio Bursts That Repeat on a Regular Basis](#) [*Universe Today*]

More on FRBs: [MIT Scientists Discover Deep Space Signal, Pulsing Like Heartbeat](#)