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# Algorithm optimization to improve continuous gravitational-wave searches

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The recent observation of gravitational waves from merging binary systems of compact astrophysical objects has opened a new window to explore the Universe. A strong effort is still ongoing to detect signals from different sources, like rotating isolated neutron stars, which are expected to produce continuous, persistent gravitational waves. In this talk, I will show that those searches are typically computationally bounded and that the optimization of the algorithm can lead to a direct improvement of the search sensitivity. In this optic, I will present the work we are doing as a flagship use case of the Spoke 2 WorkPackage 3.

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