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Abstract for an Invited Paper for the APR18 Meeting of the American Physical Society

## Primordial Black Holes as Gravitational Wave Sources

ILIAS CHOLIS, Johns Hopkins University

With the first detections of gravitational waves by LIGO, a new window has opened to study the cosmos. Of the many questions we can ask, I am going to focus on the one pertaining to the nature of dark matter. I am going to show that if dark matter is composed of primordial black holes produced at the early stages of the Universe, with a characteristic mass range of 10-100 solar masses; then the LIGO interferometers can be used to indirectly detect dark matter in the local Universe. Furthermore I am going to discus probes to use and the possible signals to search for in order to achieve that goal.