

Abstract Submitted
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Preliminary Results For the Distribution of Observable Pulsars Within the Galaxy FRANK CEBALLOS, MATTHEW BENACQUISTA — We present preliminary results from an attempt to predict the distribution of observable pulsars within the Galaxy. This work is intended to provide some indication of the likelihood of finding a pulsar outside of the Galactic plane. We model the population of pulsars by considering the birth of stars within the disk of the Galaxy and evolving them to the present time. We include a model of the spatial distribution of stars in the disk, the star formation rate, the initial mass function, and the kick velocities given to the neutron star during the supernova event. Following the supernova event, we propagate the neutron star through a model of the Galactic potential to obtain the present-day distribution of pulsars.

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