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Results from Falcon all-sky searches for continuous waves VLADIMIR DERGACHEV, MARIA ALESSANDRA PAPA, AEI/Hannover — Continuous waves from non-axisymmetric neutron stars are orders of magnitude weaker than transient events from black hole and neutron star collisions. As continuous waves from galactic sources are expected to persist throughout an observing run the searches integrate months of collected data. This greatly increases sensitivity, with a corresponding increase in analysis complexity. Loosely coherent searches are designed to cover large parameter spaces, trading off sensitivity with breadth for greater chance of detection. We will present results of all-sky searches for neutron stars and other sources carried out by Falcon pipeline utilizing loosely coherent algorithms.

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