

# Status of CW search coding at UWM

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The University of Wisconsin — Milwaukee LSC group is currently engaged in two distinct coding tasks for continuous quasi-periodic sources:

- I Template placement for area searches, used by both Hough and stack-slide search algorithms (Ben Owen and Teviet Creighton)
- II Multiprocessor implementation of stack-slide search algorithms (Patrick Brady and Teviet Creighton)

# I Template placement code

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- Code now exists in LAL for computing the parameter-space metric for generic (sky + spindown) area searches.
- Code now exists in LAL for optimal placement of templates for directed searches (spindown only).
- 6-month plan: to provide code for optimal placement of templates for sky-position searches.
  - We will also explore the need for including sky-spindown correlations.

## II Stack-slide search code

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- The basic components of the stack-slide method (time-domain resampling and frequency sliding) exist in LAL.
- Immediate goal: to incorporate the time-domain barycentring functions from the AEI into our demodulation code.
- 6-month plan: to provide at least a rudimentary (not computationally optimized) multiprocessor implementation of the stack-slide algorithm.