Review Summary

- Search/Publication: An all-sky search for long-duration gravitational wave transients with initial LIGO
  - Analysis Team: Tanner Prestegard, MarieAnne Bizouard, Samuel Franco (Patrice Hello, Nelson Christensen, Eric Thrane)
  - Reviewers: Fabio Garufi, Erik Katsavounidis, Chris Messenger, Michal Was
- Top review page: https://wiki.ligo.org/viewauth/Main/S5Review
  - 38 review calls in the last 15 months spent mostly in discussing investigations prepared by the analysis team or suggested/requested by the review committee
  - A face-to-face meeting (concurrently @ MIT and Orsay) in October 2014 reviewed the bulk of the code

Review Summary

- Search methodology/code basis builds on top of the STAMP-GRB search [PRD 88 (2013) 122004]

- Code review (including line-by-line walk-through) emphasized on new or modified functions w/r/t original STAMP version

- Most findings that resulted to changes in the search/code were identified via extensive investigations of the background and software injection runs (diagnostic plots, understanding of features, comparison with Gaussian noise, extending signal morphologies beyond the ADI waveforms used in the GRB search)

- S5 analysis/results were reviewed first, S6 search completed (and reviewed) later in the process (and with the S5-reviewed code basis)

Review Summary

- Search targets relevant and interesting astrophysical sources for GW emission: core-collapse supernovae and long GRBs
- Extensive software signal injection studies establish the sensitivity to astrophysical waveforms, but also ad-hoc ones
- Data from S5 and S6 included, but not from VSR2 as incremental sensitivity improvement at the few % level
- Loudest events from the search consistent with background at the 54% and 12% false-alarm-probability level (for S5 and S6 respectively)
- Review committee has signed off on the results and the paper, pending feedback from the LVC