

Abstract Submitted
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Spectral comb mitigation to improve continuous-wave search sensitivity in Advanced LIGO ANSEL NEUNZERT, Univ of Michigan - Ann Arbor, LIGO SCIENTIFIC COLLABORATION, VIRGO COLLABORATION — Searches for continuous gravitational waves, such as those emitted by rapidly spinning non-axisymmetric neutron stars, are degraded by the presence of narrow noise "lines" in detector data. These lines either reduce the spectral band available for analysis (if identified as noise and removed) or cause spurious outliers (if unidentified). Many belong to larger structures known as combs: series of evenly-spaced lines which appear across wide frequency ranges. This talk will focus on the challenges of comb identification and mitigation. I will discuss tools and methods for comb analysis, and case studies of comb mitigation at the LIGO Hanford detector site.

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