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Three more keywords for GW Data Analysis: SIRP, Signum-coded, Sequential

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• SIRP

Spherically Invariant Random Processes (*breathing gaussians*) can model broad classes of non-stationary/non-gaussian noises, and the optimal detector in SIRP is known. SIRP diagnostics are reviewed; preliminary results on real IFO noises are presented.

Signum-coded

1 -bit coding entails huge savings in terms of storage and CPU budget. Tradeoffs between obvious loss in performance and nonobvious increased robustness against unmodeled noise features are discussed by comparison to std. matched filtering.

Sequential

Potential advantages in using the sequential (two thresholds) detection paradigm (Wald, 1947), in connection with permanent GW sources, e.g. PSRs with unknown parameters, are discussed.