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The effect of white non-stationary data on drifting signal detection[1] MAURICIO FLORES, ALEXANDER STROEER, MATTHEW BENACQUISTA, University of Texas at Brownsville — We analyze the effect of non-stationary noise in the detection of drifting signals on unevenly sampled data. Initial frequency estimation is obtained from a Lomb-Scargle periodogram; which is followed by a global multi-start optimization, as working on a dense local Nelder-Mead iterator for parameter estimates. It has been found that a varying white noise level has no effect on the required relative signal-to-noise ratio for detection in the proposed algorithm, though affecting the absolute amplitude strength of the signal recording. Future work includes the addition of colored noise to this analysis.

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