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In-vacuo-dispersion-like spectral lags in gamma-ray bursts

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Some recent studies exposed rather strong statistical evidence of in-vacuo-dispersion-like spectral lags for gamma-ray bursts (GRBs), a linear correlation between time of observation and energy of GRB particles. Those results focused on testing in-vacuo dispersion for the most energetic GRB particles, and in particular only included photons with energy at emission greater than 40 GeV. We here extend the window of the statistical analysis down to 5 GeV and find results that are consistent with what had been previously noticed at higher energies.

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