



Long wavelength resolution of wavelet and multitaper-Fourier spectra: application to the isostatic admittance

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When used with certain parameter values, the multitaper method of spectral analysis has a relatively poor resolution in the wavenumber domain when compared with global power spectra derived using the wavelet transform. We show this finding from analysis of synthetic fractally-distributed data, and from synthetic data representing the deformation of a plate acted on by flexural and convective processes. We further explore the consequences of such disparity upon estimates of the elastic thickness of the continental lithosphere.