

## On the existence of spurious modes in Battle-Lemarie based MRTD

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*C.D. Sarris and L.P.B. Katehi. "On the existence of spurious modes in Battle-Lemarie based MRTD." 2001 Microwave and Wireless Components Letters 11.2 (Feb. 2001 [MWCL]): 71-73.*

A distinction between the effects of inaccuracy of the Battle-Lemarie wavelet based multiresolution time domain (W-MRTD) scheme for high spatial frequencies and spurious modes is drawn and explained. Investigating the performance of the scheme under various excitation methods, it is concluded that what was described earlier in the literature as a spurious mode effect actually corresponds to alias frequencies stemming from the excitation of higher order modes by the wavelets, given that the latter are spectrally supported at higher wavenumbers.

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