

# Abstracts

## Time-domain finite-element modeling of dispersive media

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*D. Jiao and Jian-Ming Jin. "Time-domain finite-element modeling of dispersive media." 2001 Microwave and Wireless Components Letters 11.5 (May 2001 [MWCL]): 220-222.*

A general formulation is described for time-domain finite-element modeling of electromagnetic fields in a general dispersive medium. The formulation is based on the second-order vector wave equation and incorporates the dispersion effect of a medium via a recursively evaluated convolution integral. This evaluation is kept to second order in accuracy using linear interpolation within each time step. Numerical examples are given to validate the proposed formulation.

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