Abstracts

Coupling of the Pisces Device Modeler to a 3-D Maxwell FDTD Solver (Short Papers)

V.A. Thomas, M.E. Jones and R.J. Mason. "Coupling of the Pisces Device Modeler to a 3-D Maxwell FDTD Solver (Short Papers)." 1995 Transactions on Microwave Theory and Techniques 43.9 (Sep. 1995, Part I [T-MTT]): 2170-2172.

We show how PISCES-like semiconductor models can be joined non-invasively to finite difference time domain models for the calculation of coupled external electromagnetic, The method involves "tricking" the standard current boundary condition for the device model into accepting an effective parallel external capacitance. For nearly steady state device conditions we show the results for a transmission line-coupled PISCES diode to agree well with those for an ideal diode.

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