

# Abstracts

## A review of global modeling of charge transport in semiconductors and full-wave electromagnetics

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*R.O. Grondin, S.M. El-Ghazaly and S. Goodnick. "A review of global modeling of charge transport in semiconductors and full-wave electromagnetics." 1999 Transactions on Microwave Theory and Techniques 47.6 (Jun. 1999, Part II [T-MTT]): 817-829.*

Models of semiconductor devices that combine complex transport models with full-wave solutions of Maxwell's equations are reviewed. Both hydrodynamic and ensemble Monte Carlo transport models are studied. The coupling of such transport models with electrodynamics is discussed and sample results are presented. The physical consistency of the models is considered and some open computational challenges are reviewed.

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