Abstracts

Smoothing gate capacitance models for CMOS radio frequency and microwave integrated circuits CAD (2002 Vol. I [MWSYM])

Convergence problems for both voltage- and charge-controlled models of MOSFET gate capacitances are often a limiting factor of CAD tools. An idea for exponential smoothing of model discontinuities is proposed. The method is demonstrated by smoothing the discontinuity of Meyer's model at zero drain-source voltage. The updated model is tested on a flip-flop circuit by an advanced algorithm.

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