

State-variable-based transient circuit simulation using wavelets

C.E. Christoffersen and M.B. Steer. "State-variable-based transient circuit simulation using wavelets." 2001 Microwave and Wireless Components Letters 11.4 (Apr. 2001 [MWCL]): 161-163.

For the first time a state variable transient analysis using wavelets is developed and implemented in a circuit simulator. The formulation is particularly well suited to modeling RF and microwave circuits and is validated by considering a nonlinear transmission line. However, results indicate that still more research is needed to make this method efficient for the simulation of large circuits.

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