عنوان مقاله:

FDLTD method for the Physical Simulation of Microwave FET Transistor

محل انتشار:

نوزدهمین کنفرانس مهندسی برق ایران (سال: 1390)

تعداد صفحات اصل مقاله: 4

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خلاصه مقاله:

This paper describes an new application of weighted Laguerre polynomial functions to produce a unconditionally stable Finite-Difference Laguerre-Time-domain (FDLTD) scheme for simulation of the Drift-Diffusion Model (DDM) of microwave active devices. The unconditionally stability of FDLTD method leads to a significant reduction in the simulation time. For example, when 100 weighted Laguerre polynomial functions is used, FDLTD is 5 times faster .than conventional FDTD method while they have the same degree of accuracy

کلمات کلیدی:

Microwave FET Transistor, Semiconductor Device, finite-difference Laguerre time-domain (FDLTD), Drift-Diffusion Model