Abstracts

Small-signal distributed FET modeling through electromagnetic analysis of the extrinsic structure

A. Cidronali, G. Collodi, A. Santarelli, G. Vannini and G. Manes. "Small-signal distributed FET modeling through electromagnetic analysis of the extrinsic structure." 1998 MTT-S International Microwave Symposium Digest 98.1 (1998 Vol. I [MWSYM]): 287-290.

The paper presents a new approach to the distributed modeling of high frequency transistors suitable for CAD applications. In particular, electromagnetic simulation is adopted to characterize the extrinsic part of the electron device in terms of a multi-port scattering matrix without introducing approximations based on lumped components. Experimental and simulation results for 0.5 /spl mu/m GaAs MESFETs with different gate widths preliminary confirm the consistency of the proposed approach.

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