# Abstracts

## Integrated Harmonic Balance and Electromagnetic Optimization with Geometry Capture

*J.W. Bandler, R.M. Biernacki, Q. Cai, S.H. Chen and P.A. Grobelny. "Integrated Harmonic Balance and Electromagnetic Optimization with Geometry Capture." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 793-796.*

This paper presents an integrated approach to nonlinear circuit optimization. Electromagnetic simulationsare seamlessly integrated into harmonic balance simulation and optimization. For the first time, complicated planar structures can be made fully optimizable through the parameterization process of our breakthrough Geometry Capture technique. They are then treated as individual elements in electromagnetic simulations and are embedded into the overall nonlinear circuit to be optimized. A comprehensive class B frequency doubler design demonstrates our approach.

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