

# Abstracts

## Aggressive Space Mapping for Electromagnetic Design

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*J.W. Bandler, R.M. Biernacki, S.H. Chen, R.H. Hemmers and K. Madsen. "Aggressive Space Mapping for Electromagnetic Design." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1455-1458.*

We propose a new aggressive Space Mapping strategy for electromagnetic (EM) optimization. Instead of waiting for upfront EM analyses at several base points, it exploits every available EM analysis using the classical Broyden update, producing dramatic results right from the first step. A high-temperature superconducting filter design solution emerges after fewer EM analyses than the number of designable parameters! For the first time, Space Mapping is extended to the parameter extraction phase, overcoming severely misaligned starting points induced by inadequate empirical models.

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