

Abstracts

The Alternating Transmission Line Matrix (ATLM) Scheme

P. Russer and B. Bader. "The Alternating Transmission Line Matrix (ATLM) Scheme." 1995 MTT-S International Microwave Symposium Digest 95.1 (1995 Vol. 1 [MWSYM]): 19-22.

A novel alternating transmission line matrix scheme (ATLM) is presented where the TLM cells are subdivided into two subsets of mutually neighboring cells. Within each time step the state of one subset of cells is computed from the states of the neighboring cells at the previous time step. Compared with existing TLM schemes the numerical effort as well as the storage requirements are reduced by 50% without loss of accuracy. Furthermore, spurious solutions occurring in existing TLM schemes can be avoided by ATLM.

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