

Abstracts

Laguerre-SVD reduced-order modeling

L. Knockaert and D. de Zutter. "Laguerre-SVD reduced-order modeling." 2000 Transactions on Microwave Theory and Techniques 48.9 (Sep. 2000 [T-MTT] (Mini-Special Issue on Research Reported at the 8th Topical Meeting on Electrical Performance of Electronic Packaging (EPEP) 1999)): 1469-1475.

A reduced-order modeling method based on a system description in terms of orthonormal Laguerre functions, together with a Krylov subspace decomposition technique is presented. The link with Pade approximation, the block Arnoldi process and singular value decomposition (SVD) leads to a simple and stable implementation of the algorithm. Novel features of the approach include the determination of the Laguerre parameter as a function of bandwidth and testing the accuracy of the results in terms of both amplitude and phase.

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