Abstracts

Input variable space reduction using dimensional analysis for artificial neural network modeling [of MMICs]

P.M. Watson, M.Y. Mah and L.L. Liou. "Input variable space reduction using dimensional analysis for artificial neural network modeling [of MMICs]." 1999 MTT-S International Microwave Symposium Digest 99.1 (1999 Vol. I [MWSYM]): 269-272 vol.1.

Dimensional analysis for artificial neural network modeling of passive components is demonstrated. Results show that using dimensional analysis to limit the number of input variables significantly reduces the amount of training vectors needed for model development, which in turn decreases model development time. Also, dimensional analysis allows for determination of appropriate input variable space and leads to increased model accuracy.

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