Abstracts

Automated design of microwave devices using full EM optimization method

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A relevant automated electromagnetic (EM) optimization method is presented. This optimization method combines a rigorous and accurate global EM analysis of the device performed with a finite element method (FEM) and a fast analytical model deducted from its segmented EM analysis. First we describe our automated optimization method with the definition of the analytical model, then we apply it to optimize two volumic dielectric resonator (DR) filters. The accuracy of this automated method is demonstrated considering the good agreement between theoretical optimization results and experimental ones.

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