

Multipoint Arnoldi model order reduction for electromagnetic wave scattering computation

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Abstract This paper presents a model order reduction algorithm for the volume integral equation formulation of electromagnetic wave scattering. We apply the multipoint Arnoldi algorithm to circumvent the complexity associated with the numerical solution of such formulations. A numerical example is presented which demonstrates that the multiple expansion point Arnoldi algorithm provides an improvement in accuracy over the single expansion point Arnoldi algorithm.