

COMMENT

Effect of Boundary Condition Description on Convergence of Solution in a Boundary Value Problem by K. RAJAJAH and A. K. RAO, *Journal of Computational Physics* 3, 190-201 (1968).

The writer wishes to congratulate the authors for their interesting paper and thorough comparison of numerical results by three different techniques. The criteria of successive integration of boundary errors presented by the authors is a new technique and should be of wide interest to Applied Mechanics analysts.

It may be of some interest to point out that the writer and his coworkers developed a criteria of successive integration of the interior error function along internal segments conveniently selected inside the domain. Following this technique the differential equation is solved approximately but the boundary conditions are satisfied identically. It was shown in several papers [1-12] dealing with vibrations of membranes and plates, determination of cutoff frequencies of waveguides, heat conduction, flow and heat transfer problems, etc. that the technique is quite convenient when used jointly with the conformal mapping method by which the given complicated domain is transformed onto a unit circle. Since the governing differential equation does not remain invariant under the transformation, it is then necessary to use an approximate technique to solve it. Results calculated using the criteria of integration along concentric circular arcs of radius $\gamma_i \leq 1$ compared extremely well with those obtained using more involved methods like the Galerkin Method.

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