

Letter to the Editor

A Collocation Method for Solving Laplace's Equation

The author presents an interesting application of the boundary collocation or point matching technique. As shown in the Note, the stability of the method improves considerably when a "least squares" criteria is introduced. It is important to point out that similar approaches have been followed by other investigators when dealing with harmonic and biharmonic boundary value problems (Refs. [1-4]). Reference [5] uses a collocation technique, least-squares criteria, to calculate the acoustic radiation in a domain exterior to an acoustic source that is vibrating harmonically in time. Solution of an unsteady state diffusion type problem using a similar approach is presented in Ref. [6]. Considerable improvement of the collocation technique is also obtained using an "extremal" criteria (Refs. [7-9]), integration along boundary or internal segments (Refs. [10-12]), etc.

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RECEIVED: February 8, 1971

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