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By A Mayo

Forgotten Books, 2018. Hardback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****.Excerpt from Fast Parallel Iterative Solution of Poisson s and the Biharmonic Equations on Irregular Regions: January 1991 In [10] a method was introduced for solving Poisson s or the biharmonic equation on an irregular region by making use of an integral equation formulation. Because fast solvers were used to extend the solution to an enclosing rectangle, this method avoided many of the standard problems associated with integral equations. The equations that arose were Fredholm integral equations of the second kind with bounded kernels. In this paper we use iterative methods to solve the dense nonsymmetric linear systems arising from the integral equations. Because the matrices are very well-conditioned, conjugate gradient-like methods can be used and will converge very rapidly. The methods are very amenable to vectorization and parallelization, and we describe parallel and vector implementations on shared memory multiprocessors. Numerical experiments are described and results presented for a 3-dimensional interface problem for the Laplacian on a recording head geometry. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at This book is a reproduction of an...

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