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CONVERGENCE RATE OF A GENERALIZED ADDITIVE SCHWARZ ALGORITHM

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摘要
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CONVERGENCE RATE OF A GENERALIZED ADDITIVE SCHWARZ ALGORITHM

Jin-ping Zeng,Gao-jie Chen

College of Mathematics and Econometrics, Hunan University, Changsha 410082, China

Abstract The convergence rate of a generalized additive Schwarz algorithm for solving boundary value problems of elliptic partial differential equations is studied. A quantitative analysis of the convergence rate is given for the model Dirichlet problem. It will be shown that a greater acceleration of the algorithm can be obtained by choosing the parameter suitably. Some numerical tests are also presented in this paper.

Key words Schwarz additive algorithm Convergence rate Dirichlet problem.

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