论文

THE SPLITTING EXTRAPOLATION FOR FINITE ELEMENT METHOD

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摘要　　A new splitting extrapolation based on multivariate asymptotic expansionsof finite elemellt eraes for differellt mesh parameters is described. By means of splittingextrapolation, a far 3 scale problem is decomposed into many subproblems, which can besolved in parallel. 111 this paper) we prove that the splitting extrapolation algorithm possesses a high order accuracy and the computation is almost independent of the dimension ofthe problem. Moreover, an extrapolation algorithm at global fine grid points is presented,several numerical examples including interface problems are discussed.

关键词　　Splitting extrapolation, parallel algori

分类号

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Key words   Splitting extrapolation   parallel algorithm   domain decomposition

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