

P_1 -nonconforming Quadrilateral Finite Volume Element Method and Its Cascadic Multigrid Algorithm

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摘要

关键词

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Abstract In this paper, we discuss the finite volume element method of P_1 -nonconforming quadrilateral element for elliptic problems and obtain optimal error estimates for general quadrilateral partition. An optimal cascadic multigrid algorithm is proposed to solve the nonsymmetric large-scale system resulting from such discretization. Numerical experiments are reported to support our theoretical results.

Key words [finite volume element method](#) [cascadic multigrid](#) [Elliptic problems.](#)

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