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定常的磁流体动力学问题的Galerkin-Petrov最小二乘混合元方法

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摘要: 提出了定常的磁流体动力学方程的一种Galerkin-Petrov最小二乘混合元方法, 并导出Galerkin-Petrov最小二乘混合元解的存在性和误差估计. 通过引入Galerkin-Petrov最小二乘混合有限元方法使得该方法的混合元空间之间的组合无需满足离散的Babuska-Brezzi稳定性条件, 从而使得它们的混合有限元空间可以任意选取, 并得到误差估计最优阶.

关键词: 磁流体力学方程; 混合元方法; Galerkin-Petrov最小二乘法; 误差估计
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