

Zhu, Jiang; Loula, Abimael F. D.; Quartapelle, Luigi

Finite element solution of vector Poisson equation with a coupling boundary condition.
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Numer. Methods Partial Differ. Equations 16, No. 1, 71-83 (2000).

The authors study the boundary value problems for the vector Poisson equation with boundary conditions that include the divergence of the unknown vector function. Variational formulation and finite element approximation are presented. A convergence analysis of the numerical schemes is provided together with some numerical results.

Reviewer: [Pavel Burda \(Praha\)](#)

MSC:

- [65N30](#) Finite element, Rayleigh-Ritz and Galerkin methods for boundary value problems involving PDEs
- [35J05](#) Laplace operator, Helmholtz equation (reduced wave equation), Poisson equation
- [65N12](#) Stability and convergence of numerical methods for boundary value problems involving PDEs
- [65N15](#) Error bounds for boundary value problems involving PDEs

Cited in **2** Documents

Keywords:

[error estimates](#); [vector Poisson equation](#); [finite element](#); [convergence](#); [numerical results](#)

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