

Advances in Computational Mechanics

Einladung zum
Vortrag

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A Petrov-Galerkin Enriched Method for the Darcy Equation

We present novel enhanced finite element methods for the Darcy problem starting from the non stable continuous P_1/P_0 finite element spaces enriched with multiscale functions. The method is a departure from the standard mixed method elements used in these applications. The methods are derived in a Petrov-Galerkin framework where both velocity and pressure trial spaces are enriched with functions based on residuals of strong equations in each element and edge partition. The strategy leads to enhanced velocity space with an element of the lowest order Raviart-Thomas space and to a stable weak formulation preserving local mass conservation. Optimal error estimates are obtained in natural norms and numerical tests validate the method.

Montag, 24. Okt. 2005
16:00 Uhr

Seminarraum LNM
MW 1237



Für weitere Informationen: <http://www.lnm.mw.tum.de/events>
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