

Gianmarco Manzini - Publication List

REFEREED JOURNAL PUBLICATIONS

1. A. Cangiani, F. Gardini, and G. Manzini. Convergence of the mimetic finite difference method for eigenvalue problems in mixed form, 2010. To Appear in *Computer Methods in Applied Mechanics and Engineering*. Available online since 12 June 2010 at <http://dx.doi.org/10.1016/j.cma.2010.06.011>.
2. Y. Coudière and G. Manzini. The discrete duality finite volume method for convection-diffusion problems. *SIAM Journal on Numerical Analysis*, 47(6):4163–4192, 2010.
3. A. Lovison, G. Manzini, A. Maritan, A. Rinaldo, and M. Putti. Spanning tracer-outes over modular network and general scaling degree distributions. *Physical Review E.*, 81(036105), 2010.
4. G. Manzini. An efficient and conservative hybrid method for solving multi-dimensional conservation laws. *Numerical Methods for Partial Differential Equations*, 25(5):1029–1066, 2009.
5. L. Beirão da Veiga, J. Droniou, and G. Manzini. A unified approach to handle convection term in finite volumes and mimetic discretization methods for elliptic problems., 2010. Accepted for publication in *IMA J. Numer. Anal.*
6. L. Beirão da Veiga, V. Gyrya, K. Lipnikov, and G. Manzini. Mimetic finite difference method for the stokes problem on polygonal meshes. *J. Comput. Phys.*, 228(19):7215–7232, 2009.
7. L. Beirão da Veiga, K. Lipnikov, and G. Manzini. Convergence analysis of the high-order mimetic finite difference method. *Numerische Mathematik*, 113(3):325–356, 2009.
8. A. Cangiani, G. Manzini, and A. Russo. Convergence analysis of a mimetic finite difference method for general second-order elliptic problems. *SIAM Journal on Numerical Analysis*, 47(4):2612–2637, 2009.
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14. G. Manzini and A. Russo. A finite volume method for advection-diffusion problems in convection-dominated regimes. *Computer Methods in Applied Mechanics and Engineering*, 197(13-16):1242–1261, 2008.
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52. L. Beirão da Veiga, K. Lipnikov, and G. Manzini. The mimetic finite difference method for steady Stokes problems on polyhedral meshes. Technical Report 6PV09/5/0, IMATI-CNR, 2009. (also Los Alamos Report LAUR 09-00753). Submitted to SIAM J. Numer. Anal.

53. S. Krell and G. Manzini. The discrete duality finite volume method for the Stokes equation on 3D polyhedral meshes. Technical Report 29PV09/22/0, IMATI-CNR, 2009. Submitted to Numer. Math.
54. K. Lipnikov, G. Manzini, F. Brezzi, and A. Buffa. The mimetic finite difference method for 3D magnetostatics fields problems. Technical Report 31PV09/24/0, IMATI-CNR, 2009. Submitted to J. Comput. Phys.

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