

Publications list

Loredana Bălilescu (Smaranda)

Papers

- [1] **L. Bălilescu**, J. San Martín, J.-F. Scheid, *Convergence of a Lagrange–Galerkin method for the equations modelling of fish-like swimming*, work in progress (2018).
- [2] **L. Bălilescu**, A. Ghosh, T. Ghosh, *Homogenization for non-local elliptic operators in both perforated and non-perforated domains*, arXiv:1805.06264 (August 2018).
- [3] **L. Bălilescu**, C. Conca, T. Ghosh, J. San Martín, M. Vanninathan, *Bloch wave spectral analysis in the class of generalized Hashin-Shtrikman micro-structures*, arXiv:1608.07540 (August 2016).
- [4] **L. Bălilescu**, C. Conca, T. Ghosh, J. San Martín, M. Vanninathan, *Dispersion tensor and its unique minimizer in Hashin-Shtrikman micro-structures*, Archive for Rational Mechanics and Analysis (2018), 230, pp. 665–700.
- [5] **L. Bălilescu**, J. San Martín, T. Takahashi, *Fluid–rigid structure interaction system with Coulomb’s law*, SIAM Journal on Mathematical Analysis (2017), 49(6), 4625–4657.
- [6] **L. Bălilescu**, J. San Martín, T. Takahashi, *On the Navier–Stokes equation with Coulomb friction law boundary condition*, Zeitschrift für Angewandte Mathematik und Physik (2017) 68:3.
- [7] J. San Martín, J.-F. Scheid, **L. Smaranda**, *The Lagrange–Galerkin method in fluid–structure interaction problems*, Boundary Value Problems 2013:246, doi:10.1186/1687-2770-2013-246 (2013).
- [8] J. San Martín, J.-F. Scheid, **L. Smaranda**, *A modified Lagrange–Galerkin method for a fluid–rigid system with discontinuous density*, Numerische Mathematik 122, No. 2 (2012), pp. 341-382.
- [9] C. Conca, J. San Martín, **L. Smaranda**, M. Vanninathan, *Burnett coefficients and laminates*, Applicable Analysis 91, Issue 6 (2011), pp. 1155-1176.
- [10] J. San Martín, J.-F. Scheid, **L. Smaranda**, *A time discretization scheme of a characteristics method for a fluid–rigid system with discontinuous density*, Comptes Rendus de l’Académie de Sciences de Paris, Série Mathématique 348, No. 15-16 (2010), pp. 935-939.
- [11] J. San Martín, **L. Smaranda**, *Asymptotics for eigenvalues of the Laplacian in higher dimensional periodically perforated domains*, Zeitschrift für Angewandte Mathematik und Physik 61, No. 3 (2010), pp. 401-424.
- [12] C. Conca, J. San Martín, **L. Smaranda**, M. Vanninathan, *Optimal bounds on Burnett coefficients in one–dimensional periodic media*, Mathematical Models and Methods in Applied Sciences 19, No. 9 (2009), pp. 1743-1764.
- [13] D. Dupuy, R. Orive, **L. Smaranda**, *Bloch waves homogenization of a Dirichlet problem in a periodically perforated domain*, Asymptotic Analysis 61, No. 3-4 (2009), pp. 229-250.

- [14] J. San Martín, **L. Smaranda**, T. Takahashi, *Convergence of a finite element/ALE method for the Stokes equations in a domain depending on time*, Journal of Computational and Applied Mathematics 230, Issue 2 (2009), pp. 521-545.
- [15] C. Conca, J. San Martín, **L. Smaranda**, M. Vanninathan *On Burnett coefficients in periodic media in low contrast regime*, Journal of Mathematical Physics 49 (2008), pp. 053514(23).
- [16] J. Ortega, J. San Martín, **L. Smaranda**, *On the homogenization of a non-homogeneous Neumann problem via Bloch wave method*, Zeitschrift für Angewandte Mathematik und Physik 58, No. 6 (2007), pp. 969–993.
- [17] J. Ortega, J. San Martín, **L. Smaranda**, *Bloch wave homogenization in a medium perforated by critical holes*, Comptes Rendus Mécanique Acad. Sci. Paris 335, No. 2 (2007), pp. 75–80.

Books and Chapters books

- [1] C. Conca, J. San Martín, **L. Smaranda**, M. Vanninathan, *Higher Order Macro Coefficients in Periodic Homogenization*, Journal of Physics: Conference Series, Vol. 319, 012020, 2011, DOI:10.1088/1742-6596/319/1/0120202011.
- [2] J. San Martín, J.-F. Scheid, **L. Smaranda**, *Convergence of a discretization scheme based on characteristics method for a fluid–rigid system*, Integral Methods in Science and Engineering, Computational and Analytic Aspects, chapter 31, Birkhauser-Boston, 2011, ISBN 978-0-8176-8237-8.
- [3] **L. Smaranda**, *Bloch waves in homogenization theory* (in romanian), Romanian Academy Publishing House, Bucharest, 2010, ISBN 978-973-27-1955-8.
- [4] C. Conca, J. San Martín, **L. Smaranda**, M. Vanninathan, *On Burnett coefficients in periodic media with two–phases*, Integral Methods in Science and Engineering, Volume 1: Analytic Methods, pp. 123-133, Birkhauser-Boston, 2010, ISBN 978-0-8176-4898-5.
- [5] J. San Martín, **L. Smaranda**, *On Bloch waves homogenization in periodically perforated media*, Proceedings of the 6th Congress of Romanian Mathematicians, Romanian Academy, vol. 1 (2009), pp. 533-544.

Mihaela Loredana Bălilescu



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