

PUBLICATIONS

- [1] C. BARBAROSIE, **A.-M. TOADER** & S. LOPES, A gradient-type algorithm for constrained optimization with application to microstructure optimization, *Discrete & Continuous Dynamical Systems - B*, doi :10.3934/dcdsb.2019249, May 2020, 25(5) : 1729-1755.
- [2] **A.-M. TOADER** & C. BARBAROSIE, Optimization of bodies with locally periodic microstructure by varying the shape, the topology and the periodicity pattern, *apresentação convidada no workshop "New trends and challenges in the mathematics of optimal design, Isaac Newton Institute for Mathematical Sciences, Cambridge, 10 a 14 de Junho de 2019*. Apresentação disponível on-line no <https://sms.cam.ac.uk/media/3001579/formats>
- [3] C. BARBAROSIE & **A.-M. TOADER**, Optimization of Eigenvalues and Eigenmodes by using the Adjoint Method, *Topological Optimization and Optimal Transport in the Applied Sciences*, Radon Series on Computational and Applied Mathematics, 17, published on 7th of August 2017, pages 142-158
- [4] P. ANTUNES, C. BARBAROSIE & **A.-M. TOADER**, Detection of holes in an elastic body based on eigenvalues and traces of eigenmodes, *Journal of Computational Physics*, Volume 333, 15 March 2017, Pages 352-368.
- [5] P. ANTUNES, C. BARBAROSIE & **A.-M. TOADER**, Identification of material and shape based on eigenvalues and traces of eigenmodes, *6-th International Conference on Mechanics and Materials in Design, Ponta Delgada, Azores, 26 - 30 July 2015*. Book of abstracts.
- [6] **A.-M. TOADER**, Optimization in Eigenvalue Problems by using the Adjoint Method, *International Conference on Engineering and Applied Sciences Optimization, 4 - 6 June 2014, Kos Island, Greece*. Book of abstracts.
- [7] C. BARBAROSIE, S. CORREIA, P. ROCHA & **A.-M. TOADER**, Smoothness of eigenvalues and eigenvectors of a matrix depending on parameters, *International workshop on Calculus of variations and its applications, on the occasion of Luisa Mascarenhas' 65th birthday, 17-19 December 2015, Universidade Nova de Lisboa, Caparica, Portugal*. Book of abstracts.
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- [9] C. BARBAROSIE, S. LOPES & **A.-M. TOADER**, Multi-objective optimization of composite materials with negative Poisson ratio, *EngOpt2014, Fourth International Conference on Engineering Optimization, IST, Lisbon, 8-11 September 2014*. Book of abstracts.
- [10] C. BARBAROSIE & **A.-M. TOADER**, Optimization of Bodies with Locally Periodic Microstructure by Varying the Periodicity Pattern, *Networks and Heterogeneous Media AIMS*, vol 9, 3, 2014, pages 433-451.
- [11] C. BARBAROSIE & **A.-M. TOADER**, Optimization of the homogenized coefficients with respect to the microgeometry of holes, *The twentyfirst Annual International Conference on Composites/Nano Engineering ICCE-21 Tenerife, Spain, July 21 - 27, 2013*. Book of abstracts.
- [12] C. BARBAROSIE & **A.-M. TOADER**, Design of Composite Materials with Negative Poisson Ratio Along Several Directions, *The twentyfirst Annual International Conference on Composites/Nano Engineering ICCE-21 Tenerife, Spain, July 21 - 27, 2013*. Book of abstracts.

- [13] **A.-M. TOADER**, The Adjoint Method in Optimization, *Mathematical Optimization Techniques, 3-rd International Conference on Engineering Optimization - Rio de Janeiro, Brazil, 1-5 July 2012*. Book of abstracts.
- [14] C. BARBAROSIE & **A.-M. TOADER**, Optimization of bodies with locally periodic microstructure, *Mechanics of Advanced Materials and Structures*, Volume 19, 2012 - Issue 4 Pages 290-301.
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