



## **Professor Hamid Zahrouni**

See:

<https://scholar.google.fr/citations?user=Aqodp54AAAAJ&hl=en>  
[http://www.researchgate.net/profile/Zahrouni\\_Hamid](http://www.researchgate.net/profile/Zahrouni_Hamid)  
<http://www.lem3.fr/annuaire.php?page=fiche&nom=ZAHROUNI>

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### **Selected Publications:**

H Zahrouni, B Cochelin, M Potier-Ferry, "Computing finite rotations of shells by an asymptotic-numerical method", *Computer Methods in Applied Mechanics and Engineering* 175 (1), 71-85, 1999

A Imazatene, H Zahrouni, M Potier-Ferry, "An improved reduced basis method to solve nonlinear problems", *ZAMM-Journal of Applied Mathematics and Mechanics*, 2000

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H Abichou, H Zahrouni, M Potier-Ferry, "Asymptotic numerical method for problems coupling several nonlinearities", *Computer Methods in Applied Mechanics and Engineering* 191 (51), 5795-5810, 2002

M Jamal, L Lahlou, M Midani, H Zahrouni, A Limam, N Damil, "A semi-analytical buckling analysis of imperfect cylindrical shells under axial compression", *International Journal of Solids and Structures* 40 (5), 1311-1327, 2003

EH Boutyourn, H Zahrouni, M Potier-Ferry, M Boudi, "Bifurcation points and bifurcated branches by an asymptotic numerical method and Padé approximants", *International Journal for Numerical Methods in Engineering* 60 (12), 1987-2012, 2004

EH Boutyourn, H Zahrouni, M Potier-Ferry, M Boudi, "Asymptotic-numerical method for buckling analysis of shell structures with large rotations", *Journal of computational and applied mathematics* 168 (1), 77-85, 2004

N Jacques, A Elias, M Potier-Ferry, H Zahrouni, "Buckling and wrinkling during strip conveying in processing lines", *Journal of Materials Processing Technology* 190 (1), 33-40, 2007

J Yvonnet, H Zahrouni, M Potier-Ferry, "A model reduction method for the post-buckling analysis of cellular microstructures", *Computer Methods in Applied Mechanics and Engineering* 197 (1), 265-280, 2007

S Nezamabadi, J Yvonnet, H Zahrouni, M Potier-Ferry, “A multilevel computational strategy for handling microscopic and macroscopic instabilities”, *Computer Methods in Applied Mechanics and Engineering* 198 (27), 2099-2110, 2009

S Nezamabadi, H Zahrouni, J Yvonnet, M Potier-Ferry, “A multiscale finite element approach for buckling analysis of elastoplastic long fiber composites”, *International Journal for Multiscale Computational Engineering* 8 (3), 2010

S Abdelkhalek, P Montmitonnet, M Potier-Ferry, H Zahrouni, N Legrand, “Strip flatness modelling including buckling phenomena during thin strip cold rolling”, *Ironmaking & Steelmaking* 37 (4), 290-297, 2010

Y Cong, J Yvonnet, H Zahrouni, “Simulation of instabilities in thin nanostructures by a perturbation approach”, *Computational Mechanics* 53 (4), 739-750, 2014

Y Cong, S Nezamabadi, H Zahrouni, J Yvonnet, “Multiscale computational homogenization of heterogeneous shells at small strains with extensions to finite displacements and buckling”, *International Journal for Numerical Methods in Engineering*, 2015