

## Publications de Gaëlle MESGOUEZ – Liste des publications depuis 1997

### Articles dans des revues et ouvrages de synthèse d'audience internationale à comité de lecture

- [17] Chahour K., Lefeuvre-Mesgouez G., Mesgouez A. "Spectral analysis of a railway track in contact with a multilayered poroviscoelastic soil subjected to a harmonic moving load", *Soil Dynamics and Earthquake Engineering*, Volume 64, 24-37, 2014, dx.doi.org/10.1016/j.soildyn.2014.04.006.
- [16] Mesgouez A., Buis S., Ruy S., Lefeuvre-Mesgouez G. "Uncertainty analysis and validation of the estimation of effective hydraulic properties at the Darcy scale", *Journal of Hydrology*, Volume 512, 303-314, 2014, dx.doi.org/10.1016/j.jhydrol.2014.02.065
- [15] Capeillère J., Mesgouez A., Lefeuvre-Mesgouez G. Axisymmetric wave propagation in multilayered poroelastic grounds due to a transient acoustic point source, in *Soil Dynamics and Earthquake Engineering*, Volume 52, 70-76, 2013, dx.doi.org/10.1016/j.soildyn.2013.05.003, pdf.
- [14] Beudez N., Doussan C., Lefeuvre-Mesgouez G. and Mesgouez A. "Influence of Three Root Spatial Arrangement on Soil Water Flow and Uptake. Results from an Explicit and an Equivalent, Upscaled, Model", in *Procedia Environmental Sciences*, Volume 19, 37-46, 2013, dx.doi.org/10.1016/j.proenv.2013.06.005.
- [13] Lefeuvre-Mesgouez G., Mesgouez A., Ogam E., Scotti T., Wirgin A. "Retrieval of the source location and mechanical descriptors of a hysteretically-damped solid occupying a half space by full wave inversion of the response signal on its boundary", *Journal of Applied Geophysics*, Volume 88, 70-82, 2013. pdf
- [12] Lefeuvre-Mesgouez G., Mesgouez A., Chiavassa G., Lombard B. "Semi-analytical and numerical methods for computing transient waves in 2D acoustic / poroelastic stratified media", *Wave Motion*, Volume 49, Issue 7, 667-680, 2012. pdf
- [11] Lefeuvre-Mesgouez G., Mesgouez A. "Three-dimensional dynamic response of a porous multilayered ground under moving loads of various distributions," *Advances in Engineering Software*, Volume 46, Issue 1, 75-84, 2012. pdf
- [10] El Ayadi A., Picoux B., Lefeuvre-Mesgouez G., Mesgouez A., Petit A. "An improved dynamic model for the study of a flexible pavement", *Advances in Engineering Software*, Volume 44, Issue 1, 44-53, 2012. pdf
- [9] Mesgouez A., Lefeuvre-Mesgouez G. "Transient solution for multilayered poroviscoelastic media obtained by an exact stiffness matrix formulation" *International Journal for Numerical and Analytical Methods in Geomechanics*, 33, 1911-1931, 2009. pdf
- [8] Mesgouez A., Lefeuvre-Mesgouez G., Study of transientporoviscoelastic soil motions by semi-analytical and numerical approaches, *Soil Dyamics and Earthquake Engineering*, 2009, 29(2), 245-248. pdf
- [7] Lefeuvre-Mesgouez G., Mesgouez A., Ground vibration due to a high-speed moving harmonic rectangular load on a poroviscoelastic half-space, *International Journal of Solids and Structures*, 2008, 45(11-12), 3353-3374. pdf

[6] Terekhov A., Mesgouez A., Lefeuvre-Mesgouez G., Transient Mechanical Wave Propagation in Semi-Infinite Porous Media using a Finite Element Approach with Domain Decomposition Technology, Lecture Notes in Computer Science, ed. Springer, 2007, 4671, 174-183, doi : 10.1007/978-3-540-73940-1\_17.

[5] Mesgouez A., Lefeuvre-Mesgouez G., Chambarel A., Fougère D., Numerical modelling of poroviscoelastic grounds in the time domain using a parallel approach, Lecture Notes in Computer Science, 2006, 3992, 50-57, doi : 10.1007/11758525\_7.

[4] Mesgouez, A., Lefeuvre-Mesgouez, G., Chambarel, A., Transient mechanical wave propagation in semi-infinite porous media using a finite element approach, Soil Dynamics and Earthquake Engineering, 2005, 25 (6), 421-430. 2005.

[3] Mesgouez A., Lefeuvre-Mesgouez G., Chambarel A., Simulation of transient mechanical wave propagation in heterogeneous soils, Lecture Notes in Computer Sciences, 2005, 3514, 647-654, doi : 10.1007/11428831\_80.

[2] Lefeuvre-Mesgouez G., Peplow A.T., Le Houédec D., Surface vibration due to a sequence of high speed moving harmonic rectangular loads, Soil Dynamics and Earthquake Engineering, 2002, 22, 459-473.

[1] Lefeuvre-Mesgouez G., Peplow A., Le Houédec A., Ground vibration in the vicinity of a high speed moving harmonic strip load, Journal of Sound and Vibration, 2000, 231 (5), 1289-1309.

#### Articles dans des revues nationales à comité de lecture

Lefeuvre-Mesgouez G., Le Houédec D., Propagation d'ondes dans un massif soumis à des charges roulantes se déplaçant à vitesses élevées, « Mécanique Industrielle et Matériaux », revue du GAM, juin 1998, volume 51(2), 55-57.

#### Communications à des congrès internationaux à comité de sélection et actes publiés

[16] K. Chahour, G. Lefeuvre-Mesgouez, A. Mesgouez, A. Bouheraoua, A. Laribi, "Dynamic Analysis of a Porous Layered Medium under a Load Moving along a Railway Track", in B.H.V. Topping, (Editor), "Proceedings of the Eighth International Conference on Engineering Computational Technology", Civil-Comp Press, Stirlingshire, UK, Paper 96, 2012. doi:10.4203/ccp.100.96.

[15] Chiavassa G., Lombard B., Lefeuvre-Mesgouez G. & A. Mesgouez. Time domain modeling of wave propagation in 2D acoustic porous media. Symposium of the Acoustics of Poro-Elastic Materials, 14-16 déc. 2011, Ferrara (ITA).

[14] Lefeuvre-Mesgouez G., Mesgouez A., Stiffness Matrix Formulation for Poroviscoelastic Multilayered Ground Subjected to Moving Loads, 4th Biot Conference on Poromechanics, June 08-10, 2009, Columbia Univ New York NY, PORO-MECHANICS IV , 793-798, 2009.

[13] Mesgouez A; Lefeuvre-Mesgouez G., Semi-Analytical Approach for Homogeneous and Multilayered Porous Ground Vibrations Due to Transient Excitations, 4th Biot Conference on Poromechanics, June 08-10, 2009, Columbia Univ New York NY, PORO-MECHANICS IV, 799-804, 2009.

- [12] Picoux B., El Ayadi A., Lefeuvre-Mesgouez G., Mesgouez A., Petit C., Improvement of a dynamic model for the study of a damaged flexible pavement, The Twelfth International Conference on Civil, Structural and Environmental Engineering Computing, Funchal Madeira Island, 1-4 September 2009, Paper CC117, ed. Civil-Comp Press, 13 pages.
- [11] Lefeuvre-Mesgouez G., Mesgouez A., Vibrations due to moving harmonic loads on a porous multilayered ground, ECT 2008, The Sixth International Conference on Engineering Computational Technology, Athens, Greece, 2-5 September 2008, paper ECT176, ed. Civil-Comp Press 11 pages.
- [10] Lefeuvre-Mesgouez G., Mesgouez A., Bolvin H., Chambarel A., Surface vibration of porous media: wavenumber and spatial results, CST 2006, Proceedings of the Eighth International Conference on Computational Structures Technology, Las Palmas de Gran Canaria, Spain 12-15 September 2006, paper 149 from ISBN 1-905088-08-6 (2006), ed. Civil-Comp Press 10 pages.
- [9] Mesgouez A., Lefeuvre-Mesgouez G., Chambarel A., Partially Saturated Porous Medium Vibration Induced by an Impulsional Load, III European Conference on Computational Mechanics Solids, Structures and Coupled Problems in Engineering ECCM 06, ECCOMAS European Community on Computational Methods in Applied Sciences, Lisbon, 5-9 June 2006, ed. C. A. Mota Soares 13 pages.
- [8] Mesgouez A., Lefeuvre-Mesgouez G., Chambarel A., Numerical approach of Biot's equations for transient regimes: study of mechanical couplings, EURODYN' 05, Sixth International Conference on Structural Dynamics, organisée par The European Association for Structural Dynamics, Paris, France, 4-7 Septembre 2005, ed. Millpress, Rotterdam, ISBN 90 5966 033 1, 2005, Volume 3, pages 1715-1721.
- [7] Le Houédec D., Lefeuvre-Mesgouez G., Picoux B., Soil-structure interaction for moving loads : application to railway traffic, Nine International Conference on Civil and Structural Engineering Computing, Egmond Aan Zee (Holland), 2-5 September 2003, Actes C.D.ROM (30 pages).
- [6] Mesgouez G., Chambarel A., Simulation of electromagnetic wave propagation in complex media – Application porous media with random space distribution properties, SCI 2002, The Sixth World Multiconference on Systemics, Cybernetics and Informatics, Orlando, USA 14-18 July 2002, volume XIX, p 399-404.
- [5] Picoux B., Lefeuvre-Mesgouez G., Le Houédec D., Propagation of vibrations from a railway track lying on a semi-infinite soft ground, Proceedings of The Eight International Conference on Civil and Structural Engineering Computing, Vienna, 19-21 September 2001, paper 115 from ISBN 0-948749-77-6, Actes C.D.ROM (12 pages).
- [4] Lefeuvre-Mesgouez G., Le Houédec D., Peplow A., Ground vibration due to a high speed moving harmonic load, EURODYN' 99, The Fourth Conference at the European Association for Structural Dynamics, Prague, République Tchèque, 7-10 juin 1999, Structural Dynamics – Eurodyn'99, Edition A.A. Balkema, Rotterdam, ISBN 90 5809 052 3, Volume 2, 963-968.
- [3] Lefeuvre-Mesgouez G., Le Houédec D., Peplow A., Jones D., Ground vibration due to high speed rectangular harmonic load, the Eleventh European Conference on Earthquake Engineering, Paris-La Défense, 6-11 Septembre 1998, CD-Rom (10 pages).

[2] Lefeuvre G., Peplow A., Le Houédec D., Jones D., Ground vibrations due to a high speed moving harmonic load, the 12th Engineering Mechanics Conference, an ASCE Speciality Conference, San Diego-La Jolla, California, USA, 17-20 Mai 1998, CD-Rom (4 pages).

[1] Lefeuvre G., Jones D., Golden K., Le Houédec D.. “Ground vibrations due to a moving rectangular harmonic load”, Sixth International Conference on Recent Advances in Structural Dynamics, Southampton UK, 14-17 juillet 1997 (6 pages).

#### Communications à des congrès nationaux à comité de sélection et actes publiés

[5] Mesgouez A., Lefeuvre-Mesgouez G., Propagation d'ondes dans un milieu poroélastique multicoches, 19ème Congrès Français de Mécanique de l'AUM, Marseille, 24-28 Août 2009, CD-Rom (6 pages), pdf.

[4] Mesgouez A., Lefeuvre-Mesgouez G., Chambarel A., Etudes semi-analytique et numérique de la propagation des ondes mécaniques dans un milieu poreux en régime transitoire, 18ème Congrès Français de Mécanique de l'AUM, Grenoble, 27-31 Août 2007, CD-Rom (6 pages), pdf.

[3] Lefeuvre-Mesgouez G., Le Houédec D., Propagation d'ondes dans un massif soumis à des charges roulantes se déplaçant à vitesses élevées, 14ème Congrès Français de Mécanique de l'AUM, Toulouse, 30 Août-3 Septembre 1999, CD-Rom (6 pages).

[2] Lefeuvre-Mesgouez G., Le Houédec D., Propagation d'ondes dans un massif soumis à des charges roulantes se déplaçant à vitesses élevées, 12 ème Colloque “Vibrations, chocs et bruit” du GAM, Ecole Centrale de Lyon, 10-12 juin 1998.

[1] Lefeuvre G., Jones D., Le Houédec D., Propagation d'ondes en surface d'un massif soumis à une charge roulante se déplaçant à grande vitesse, 13ème Congrès Français de Mécanique de l'AUM, Poitiers-Futuroscope, 1-5 Septembre 1997, volume 1, p. 243-246.

#### Conférences internationales

Lefeuvre-Mesgouez G., Le Houédec D., Analytical, semi-analytical and numerical models for problems involving ground vibrations due to high speed moving loads : sub- and super-Rayleigh regimes, présenté par G. Lefeuvre-Mesgouez au colloque international Banverket, 16 et 17 mars 2000, Gothenburg, Suède.