

## CURRICULUM VITAE

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### BOOKS

Elishakoff I., Pentaras D., Dujat K., Versaci C., Muscolino G., Storch J., Bucas S., Challamel N., Natsuki T., Zhang Y.Y., Wang C.M., Ghyselinck G., *Carbon nanotubes and nanosensors: vibrations, buckling and ballistic impact*, Wiley – ISTE, 2012.

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85. Belmoujahid Y., Challamel N. and Picandet V., Propagation locale et non-locale de la chaleur dans un barreau hétérogène, RUGC, Rencontres Universitaires de Génie Civil de l'AUGC, 22-24 mai 2017, Nantes, France.
86. Hache F., Elishakoff I. and Challamel N., Influence of the boundary conditions on the natural frequencies considering three versions of a Bresse-Timoshenko beam with a crack in vibration, IMECE 2017, International Mechanical Engineering Congress and Exposition, November 3-9 2017, Tampa Convention Center, Tampa, Florida, USA.
87. Lerbet J., Challamel N., Nicot F. and Darve F., Geometric degree of non-conservativeness, GSI'17 "Geometric Science of Information", organisé par la Société Mathématique de France, 7-9 November 2017, Ecole Nationale Supérieure des Mines de Paris, Paris, France.
88. Challamel N., Generalized function for buckling of nonlocal and discrete columns, International Conference: Applications of Generalized functions in harmonic analysis, Mechanics, Stochastics and PDE, 24-28 October 2017, Novi Sad, 2017.
89. Hache F., Challamel N. and Elishakoff I. Development of continualized models for the analytical study of nanoplates in buckling and vibration: principles and perspectives,

5th International Conference and Exhibition on Mechanical and Aerospace Engineering, October 2-4 2017, Las Vegas, USA.

90. Lerbet J., Challamel N., Nicot F. and Darve F., Kinematic structural stability of the Beck column, Euromech 2018, July 2-6 2018, Bologna, Italy.
91. Lerbet J., Nicot F., Challamel N. and Darve F., Divergence stability and the second-order work criterion, Euromech 2018, July 2-6 2018, Bologna, Italy.
92. Hache F., Challamel N. and Elishakoff I., Nonlocal beam and plate models from three-dimensional stress gradient elasticity, 2018 ASCE Conference, 29 May – 1<sup>st</sup> June 2018, MIT, Cambridge, USA.
93. Kaplunov J., Prikazchikova L. and Challamel N., Development of asymptotic theory for non-locally elastic plates, 55<sup>th</sup> Annual technical meeting of the American Society of Engineering Sciences, October 10-12 2018, Madrid, Spain, 2018.
94. Massoumi S., Challamel N. et Lerbet J., Dynamique d'une chaîne granulaire - Modèles discrets et continus, Congrès Français de Mécanique, 26-30 Août 2019, Brest, France.
95. Massoumi S., Challamel N. et Lerbet J., Discrete and gradient elasticity Cosserat modelling of granular chains, Powder and Granular Materials, 6-7 June 2019, Montpellier, France.
96. Li Y., Challamel N. and Elishakoff I., Stochastic analysis of lattice beams in vibrations: discrete and nonlocal approaches, ASCE-EMI 2019, 3-5 July 2019, Lyon, France.
97. Picandet V. et Challamel N., Modélisation discrète et continue non-locale du processus de rupture d'un réseau élastoplastique, Congrès Français de Mécanique, 26-30 Août 2019, Brest, France.
98. Lerbet J., Challamel N., Nicot F. and Darve F., Approche géométrique de la mécanique incrémentale, Congrès Français de Mécanique, 26-30 Août 2019, Brest, France.
99. Hérisson B., Challamel N., Picandet V. and Perrot A., Approches discrète et continue non-locale pour quelques problèmes structurels endommegables à microstructure, Congrès Français de Mécanique, 26-30 Août 2019, Brest, France.
100. Challamel N., Lattice, scale effects and nonlocal structural mechanics, AASST 2019, London, 8-9 May 2019, 2019, invited lecture.
101. Massoumi S., Challamel N. et Lerbet J., Wave dispersion analysis of discrete granular chains: discrete versus non-local approaches, ASCE-EMI 2019, 3-5 July 2019, Lyon, France.
102. Picandet V. and Challamel N., A nonlocal continuum elastoplastic model built from bilinear hardening-softening lattices, ASCE-EMI 2019, 3-5 July 2019, Lyon, France.

103. Massoumi S., Challamel N. et Lerbet J., Vibration and wave dispersion analysis of finite granular chains - discrete versus non-local approaches, 14<sup>th</sup> World Congress in Computational Mechanics (WCCM), 19-24 July 2020, Paris, France.
104. Challamel N., Lerbet J., Darve F. and Nicot F., Buckling of granular systems with discrete and gradient elasticity Cosserat continua, ASCE-EMI 2020, 26-29 May 2020, New-York, USA.
105. Lerbet J., Nicot F., Challamel N. and Darve F., Incremental mechanics: Starting an intrinsic approach, XXV ICTAM, 23-28 August 2020, Milano, Italy.

## SEMINARS

1. Challamel N., Periodical attractors in drilling mechanics : a rock mechanics point of view, University of Minnesota, 3 march 2000, invited by E. Detournay.
2. Challamel N., Exemples de stabilité de structures géomécaniques, INPG, Grenoble, 30 novembre 2000, invited by F. Darve.
3. Challamel N., Quelques exemples d'application de l'analyse limite dans l'industrie Gazière, Direction de la recherche de Gaz de France, Saint-Denis, 27 février 2001.
4. Challamel N., Stability in geomechanics : an elasticity contribution, *ALERT Workshop on quasi-brittle materials*, 8 octobre 2001, Aussois, 2001.
5. Chairman of a lecture session on *Damage Mechanics* at the 21<sup>st</sup> Congress of Theoretical and Applied Mechanics in Warsaw, 2004.
6. Challamel N., Stability and dynamics of some inelastic oscillators, EGIM, LMA, Marseille, 18 October 2005, invited by S. Bourgeois.
7. Chairman of a lecture session on *Dynamics of inelastic oscillator* at the 1st International Conference on Computational Dynamics and Earthquake Engineering, in Rethymno, 2007.
8. Challamel N., The cantilever beam: a structural paradigm, University of Rennes 1, Seminar of Mechanics, IRMAR, 15 September 2008, Rennes, invited by M. Buisson.
9. Challamel N., On the stability of non-conservative elastic systems under mixed loading, UNESCO, 23 octobre 2008, Paris, invited by E. Absi.
10. Challamel N., Influence of the loading mode on stability of structures, GDR, Thematic seminar, "Failure mechanisms in geomechanics, role of the microstructure", Grenoble, 11 mars 2009, invited by F. Nicot.
11. Challamel N., A contribution to the elastic and inelastic stability of beams with full cross section, Bordeaux, 27 mars 2009, invited by P. Castéra.

12. Chairman of a lecture session on *Stability of Solids and Structures* at the ASCE-ASME Conference, June 24-27 2009, Blacksburg, Virginia, Virginia Tech, USA.
13. Chairman of a lecture session on *Stability of Solids and Structures* at the ASCE Conference, August 8-11 2010, Los Angeles, California, USA.
14. Challamel N., Quelques exemples de stabilité et de rupture de poutres en génie civil, Grenoble, INPG, 27 septembre 2010, invited par V. Richefeu.
15. Challamel N., On the need of nonlocal mechanics in civil engineering, University of Umeå, Sweden, 24 November 2010, invited by U.A. Girhammar.
16. Challamel N., Sur l'intérêt des approches non-locales en génie civil, La Rochelle, 17 février 2011, invited by K. Ait Mokhtar.
17. Challamel N., Approches non-locales en théorie de l'élasticité, de l'endommagement et de la plasticité, Lille, 8 mars 2011, invited by J.F. Shao.
18. Challamel N., Quelques problèmes de stabilité élastique et inélastique en mécanique des structures, Compiègne, 24 mars 2011, invited by A. Ouahsine.
19. Challamel N., Quelques modèles de rupture, de stabilité et effets non-locaux, Paris, Jussieu, 5 avril 2011, invited by B. Audoly et J.B. Leblond.
20. Organization of a symposium on "Stability of composite structures" during the 2011 ASCE Conference, June 2-4 2011, Boston, Massachusetts, USA, with D. Camotim, Y. Xiang and J. Xu.
21. Chairman of a lecture session on *Continuum Damage Mechanics* at the French National Congress of Mechanics, Congrès Français de Mécanique, 28 août – 2 septembre 2011, Besançon.
22. Challamel N., Some buckling and strength problems in civil engineering, Oslo, University of Oslo, 7 September 2011, invited by J. Helleland.
23. Organization of a symposium on "Stability of solids and structures" during the 2012 ASCE Conference, June 17-20 2012, University of Notre Dame, Indiana, USA, with P. Qiao, D. Camotim, Y. Xiang and J. Xu.
24. Member of the EMI 2012 Scientific Committee, June 17-20 2012, University of Notre Dame, Indiana, USA.
25. Challamel N., On the use of nonlocal mechanics for nano- and macro- structures, Trondheim, Norwegian University of Sciences and Technology, 23 November 2011, invited by Z. Zhang.
26. Challamel N., Une incursion dans le monde des structures à différentes échelles : du génie civil aux nanotechnologies, Mercredis de la Science, 29 Février 2012, Institut Français d'Oslo, Oslo, Norvège.
27. Challamel N., An introduction into lateral-torsional buckling of elastic beams, 7 march 2012, University of Oslo, Norway, invited by J. Helleland.



28. Challamel N., Quelques modèles d'endommagement appliqués aux matériaux quasi-fragiles, Université de Bretagne Sud, 11 octobre 2012, Lorient, France, invité par P. Pilvin.
29. Challamel N., Les effets d'échelle dans les structures hétérogènes, Université de Bretagne Sud et Université de Bretagne Occidentale, 20 décembre 2012, Lorient et Brest, invité par P. Pilvin.
30. Organization of a symposium on "Stability of solids and structures" during the 2013 ASCE Conference, August 4-7 2013, Northwestern University, Evanston, Illinois, USA, with P. Qiao, D. Camotim, Y. Xiang and J. Xu.
31. Organization of a symposium on "Dynamique des structures - Instabilité" during the 2013 Congrès Français de Mécanique, 26 août – 30 août 2013, Bordeaux, with C. Laborderie, F. Legeron and A. Combescure.
32. Keynote lecture on stability of gradient plasticity systems during the symposium on "Stability of solids and structures" during the 2013 ASCE Conference, August 4-7 2013, Northwestern University, Evanston, Illinois, USA.
33. Challamel N., Du génie civil aux nanotechnologies, Fête de la Science, 11 Octobre 2013, Université de Bretagne Sud, Lorient, France.
34. Organization of a symposium on "Stability of solids and structures" during the 2014 ASCE Conference, August 5-7 2014, Mc Master University, Hamilton, Ontario, Canada, with Y. Xiang, J. Xu and A. Wadee.
35. Challamel N., Une explication mécanique des formes, Fête de la Science, 17 Octobre 2014, Université de Bretagne Sud, Lorient, France.
36. Challamel N., On the foundation of nonlocal structural mechanics from discrete elasticity, January 2015, University of Western Sydney, Sydney, 15 January 2015, invited by Prof. Xiang.
37. Challamel N., On the foundation of nonlocal structural mechanics from discrete elasticity, January 2015, University of Queensland, Brisbane, 19 January 2015, invited by Prof. Kitipornchai.
38. Challamel N., Analyse microstructurelle pour les systèmes élastiques et inélastiques, Université de Bretagne Sud, 2 juillet 2015, Lorient, France, invité par A. Perrot.
39. Challamel N., Entre matière discrète et matière continue, Nuit de la Science, 9 Octobre 2015, Université de Bretagne Sud, Lorient, France.
40. Challamel N., Some linear and non-linear elasticity lattice problems revisited in the light of nonlocal mechanics, 25 November 2015, University of L'Aquila, L'Aquila, Italia, invited by A. Luongo.
41. Organization of a symposium on "Stability and failure of structures and materials" during the 2016 ASCE Conference, October 25-27 2016, Metz, France, with A. Wadee, Y. Xiang and J. Xu.

42. Challamel N., Quasicontinuum: an intermediate state between discrete and continuous media, 18 May 2016, Budapest University of Technology and Economics, Budapest, Hungary, invited by G. Károlyi.
43. Challamel N., Atelier de mécanique non-locale, Elasticity, Plasticity and Damage, in collaboration with V. Picandet and B. Hérişson, Université de Bretagne Sud, Lorient, 19 Janvier 2017.
44. Challamel N., On lattice-based nonlocal structural mechanics, 23 January 2017, Delft University, Delft University of Technology, The Netherlands, invited by A. Simone.
45. Challamel N., Atelier autour de la modélisation des matériaux biologiques, Modèle non-régulier d'élasticité à déformation limitée, in collaboration with V. Picandet, T. Lecompte, V. Keryvin et A. Le Duigou, Université de Bretagne Sud, Lorient, 9 Mars 2017.
46. Challamel N., Bridging the gap between discrete and continuum structural mechanics through nonlocal approaches, 2 August 2017, University of Queensland, Brisbane, Australia, invited by C.M. Wang.
47. Challamel N., Approches multi-échelles en physique, mécanique et génie civil, Nuit de la Science, 6 Octobre 2017, Université de Bretagne Sud, Lorient, France.
48. Challamel N., From lattice to nonlocal structural mechanics, 8 March 2018, University of Keele, UK, invited by J. Kaplunov.
49. Challamel N., Effets d'échelle en physique, mécanique et génie civil, Nuit de la Science, 5 Octobre 2018, Université de Bretagne Sud, Lorient, France.

## REVIEWING

Review of papers submitted to International Journals (approximately in 50 International Journals).

Review of books (Elsevier, World Scientific Publishing, ISTE-Wiley)

Top reviewer 2011 in recognition of an outstanding contribution to the quality of *Engineering Fracture Mechanics*

2013 Outstanding reviewer of the *ASCE Journal of Engineering Mechanics*

2013 Certificate of excellence in reviewing papers submitted to *Engineering Structures*.

ASCE Member « *American Society of Civil Engineering* »

Member of the « Nanomechanics and micromechanics » committee of ASCE

Member of the « Stability » committee of ASCE

Past-Chairman of the EMI Stability Committee of ASCE

## **EDITORIAL BOARD FOR SCIENTIFIC BOOKS**

Member of the scientific committee MIM « *Mechanics and material engineering* » - Edited by Hermes-Lavoisier

Member of the FOCUS editorial board – Hermes science publishing

Head of the collection « Solid Mechanics and Mechanical Engineering » - ISTE Wiley

## **EDITORIAL BOARD OF INTERNATIONAL JOURNALS**

Member of the editorial board of « *Open Civil Engineering Journal* »

Member of the editorial board of « *Open Acoustics Journal* »

Member of the editorial board of « *The IES Journal Part A : Civil & Structural Engineering* »

Member of the editorial board of « *ISRN Applied Mathematics* »

Member of the editorial board of « *International Journal of Structural Stability and Dynamics* »

Member of the editorial board of « *Engineering Structures* »

Member of the editorial board of « *Research on Engineering Structures and Materials (RESM)* »

Member of the editorial board of « *Shock and Vibration* »

Member of the editorial board of « *Advances in Civil Engineering* »

Member of the editorial board of « *Journal of Applied and Computational Mechanics* »

Member of the editorial board of « *International Journal of Earthquake and Impact Engineering* »

Member of the editorial board of « *Vibration* »

Member of the editorial board of « *Civil Engineering Journal* »

Member of the editorial board of « *Acta Mechanica* »

Member of the editorial board of « *Vietnam Journal of Mechanics* »

Member of the editorial board of « *Advances in Applied Mathematics and Mechanics* »

Associate Editor of the « *Journal of Engineering Mechanics* » - ASCE

## **REVIEWING FOR NATIONAL AND INTERNATIONAL RESEARCH AGENCIES**

International reviewer for International Agencies or Academies

Cité dans l'édition "*Who's who in the World 2009* - "

Cité dans l'édition "*Top 100 Educators 2009* - "

Cité dans l'édition "*Top 100 Engineers 2009* - "

Cité dans l'édition "*International Educator of the year 2009* - "

Cité dans l'édition "*International Engineer of the year 2010* - "

Cité dans l'édition "*Who's who in Science and Engineering 2011* - "

Cité dans l'édition "*American Biographical Institute 2012* - "

Cité dans l'édition "*2000 Outstanding intellectuals of the 21th century 2013* - "

Member of ASCE (American Society of Civil Engineering), AUGC (French Society of Civil Engineering), AUM (French Society of Mechanical Engineering), IPACS (International Physics and Control Society), Society of Engineering Sciences, American Nano Society

Affiliate Professor at Florida Atlantic University (FAU) – USA College of Engineering and Computer Science