



Professor Christian Soize

Université Paris-Est Marne-la-Vallée, 77454 Marne-la-Vallée, Cedex 2, France

2. HIGHEST ACADEMIC DEGREE

Thèse de Doctorat d'Etat ès Sciences Physiques obtained in 1979 at Pierre et Marie Curie (Paris VI) University, Paris, France.

3. PROFESSIONAL EXPERIENCE

. Professor, Université Paris-Est Marne-la-Vallée, 2001 - present. . Researcher, ONERA (French Aeronaut. & Aerosp. Research Center), 1981 - 2001.

4. TEACHING.

Structural dynamics and vibration .

Probability and Stochastic Modeling in Mechanics.

Uncertainty Modeling and Uncertain Quantification in Computational Mechanics – Applications to Structural Dynamics.

Vibrations and Vibroacoustics of Complex Mechanical Systems.

5. RESEARCH INTERESTS.

. Stochastic modeling of uncertainties in computational mechanics, their propagation and their quantification

solving stochastic inverse problems.

Stochastic multi-scale modeling and application to microstructures of heterogeneous materials.

Computational mechanics, linear and nonlinear structural dynamics, structural acoustics, vibroacoustics and coupled systems.

Computational stochastic dynamics for linear and nonlinear dynamical systems.

6. AWARDS AND HONORS

. Senior Research Prize in the area of Development of Methodologies for Structural Dynamics awarded by EASD (European Association of Structural Dynamics) at EURODYN 2011, Leuven, July 4-6, 2011.

. Research Award in the area of Stochastic Dynamics awarded by IASSAR (International Association for Structural Safety and Reliability) at ICOSSAR 2001 at Newport Beach, California, USA, June 17-22, 2001.

. Noury Prize awarded by the French Academy of Sciences, 1985.

. Fellow of the Acoustical Society of America, 2001.

. Keynote lecture, Uncertainties 2012, Maresias, Brazil, February 27 - March 02, 2012.

. Keynote lecture, ECCM 2010, ECCOMAS Conference on Computational Mechanics, Solids, Structures and Coupled Problems in Engineering, Paris, May 16-21, 2010.

. Semi-Plenary Speaker, COMPDYN 2009, Computational Methods in Structural Dynamics and Earthquake Engineering, Island of Rhodes, Greece, June 22-24, 2009.

. Plenary Speaker, EM08, The Inaugural International Conference of the Engineering Mechanics Institute, University of Minnesota, Minneapolis, Minnesota, USA, May 16-21, 2008.

. Keynote lecture, LSAME 08, Leuven Symposium on Applied Mechanics in Engineering, March 31 - April 2, 2008.

. Semi-Plenary Speaker, COMPDYN 2007, Computational Methods in Structural Dynamics and Earthquake Engineering, Rethymno, Crete, Greece, June 13-15, 2007.

. Keynote lecture, 2nd LNCC Meeting on Computational Modelling, Petropolis, RJ, Brazil, 8-11 August 2006.

. Plenary Speaker, ICOSSAR 2005, 9th International Conference on Structural Safety and Reliability, Roma, Italy, June 19-22, 2005.

. Plenary Speaker, EURODYN 2002, 4th European Conference on Structural Dynamics, Munich, September 2-5, 2002.

. Plenary Speaker, 16th International Congress on Acoustics and 135th meeting Acoustical Society of America, Seattle, Washington, USA, June 20-26, 1998.

. "Chevalier dans l'ordre des Palmes Académiques" awarded by the French Ministry of Education, 1995.

. Most Cited Author 2005-2008 "Computer Methods in Applied Mechanics and Engineering" (CMAME) for the paper entitled: "Random matrix theory for modeling uncertainties in computational mechanics", CMAME, 194(12-16) 2005, 1333-1366. Diploma delivered by the Publisher.

7. PUBLICATIONS

h-index, November 7, 2013:

Web of Knowledge : Scopus : Publish or Perish (Google Scholar) :

Citing articles: 1822, Citing articles: 2124, Times cited: 5178,

h-index : 22 h-index : 24 h-index : 36

Preprints/postprints of papers and communications can be found Multidisciplinary Open Archive, HAL; go to the link "Liste des Publications" to the web address: <http://msme.univ-mlv.fr/staff/meca/soize-christian/>.

7.1. Books

P. Krée et C. Soize, *Mécanique aléatoire*, 638 Pages, Dunod, Paris, **1983**.

P. Krée and C. Soize, *Mathematics of Random Phenomena*, 438 Pages, D. Reidel Publishing Company, Series of Mathematics and its Applications, Dordrecht, **1986** (version Anglaise revue et augmentée de *Mécanique aléatoire*). C. Soize, *Méthodes mathématiques en analyse du signal*, 598 Pages, Collection Enseignement de la Physique, Masson, Paris, **1993**.

C. Soize, *The Fokker-Planck Equation for Stochastic Dynamical Systems and its Explicit Steady State Solutions*, 300 Pages, Series on Advances in Mathematics for Applied Sciences, World Scientific Publishing Co Pte Ltd, Singapore, **1994**.

R. Ohayon and C. Soize, *Structural Acoustics and Vibration*, 424 Pages, Academic Press, San Diego, London, **1998**.

C. Soize, *Dynamique des structures, Eléments de base et concepts fondamentaux*, 200 Pages, Ellipse, Paris, **2001**.

C. Soize, *Stochastic Models of Uncertainties in Computational Mechanics*, 125 Pages, Lecture Notes in Mechanics 2, American Society of Civil Engineers (ASCE), Reston, VA, USA, **2012**.

R. Ohayon and C. Soize, *Advanced Computational Vibroacoustics - Reduced-Order Models and Uncertainty Quantification*, 110 Pages, Cambridge University Press, Cambridge, (to appear).

7.2. Chapters of books

[1] - C. Soize, The local effects in the linear dynamic analysis of structures in the medium frequency range, pp. 253–275 in *Local Effects in the Analysis of Structures*, edited by P. Ladevèze, Elsevier, Amsterdam, 1985.

[2] - C. Soize, *Problèmes classiques de dynamiques stochastiques : méthodes d'étude*, Collection Mathématiques Appliquées, Numéro **11**, Fascicule **A1 346**, pp. 1–61, Techniques de l'Ingénieur, traite _ Sciences Fondamentales, Edition Périodique TI, Paris, 1988.

7.4. Papers in Refereed Journals (for more see : <http://msme.univ-mlv.fr/staff/meca/soize-christian/>)

C. Soize, Comments on stochastic dynamics of elastic structures [Sur la dynamique stochastique des structures élastiques], *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences - Série A*, **280**(25), 1765–1766 (1975).

C. Soize, Quadratic transformation of a Gaussian process and its application to stochastic dynamics [Transformation quadratique d'un processus Gaussien et application à la dynamique stochastique], *Journal de Mécanique*, **15**(5), 857–875 (1976).

C. Soize, Stochastic dynamics of slender structures subjected to random wind loading [Dynamique stochastique des structures élancées soumises aux charges de vent], *Revue Française de Mécanique*, **60**, 57–65 (1976).

C. Soize, Design of lattice structures subjected to gusty wind loads [Calcul des structures à barres soumises au vent aléatoire], *Revue Construction Métallique*, CTICM, **14**(1), 44–58 (1977).