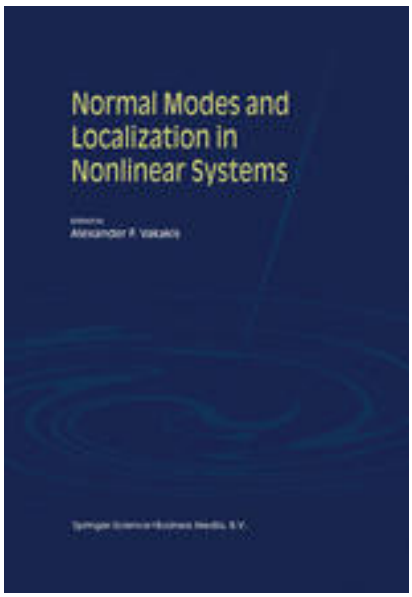

From: Alexander F. Vakakis (Editor), Normal Modes and Localization in Nonlinear Systems, Springer, ISBN: 978-90-481-5715-0, 2001

Professor Alexander F. Vakakis

See:
http://engineering.illinois.edu/directory/profile/avakakis
http://lndvl.mechse.illinois.edu/
https://experts.illinois.edu/en/persons/alexander-f-vakakis
https://scholar.google.com/citations?user=zGg8nn0AAAAJ&hl=en
http://www.pubfacts.com/author/Alexander+F+Vakakis

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Diploma Degree of Mechanical Engineering, Department of Mechanical Engineering, University of Patras, Greece, 1984

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W. Grafton and Lillian B. Wilkins Professor, Department of Mechanical Engineering, UIUC, August 2008-July 2013
Adjunct Professor, Department of Aerospace Engineering, UIUC, August 2004-August 2008
Adjunct Professor, Department of Mechanical Science and Engineering, August 2001-August 2008
Professor, Department of Applied Mathematical and Physical Sciences, National Technical University of Athens, 2001-2008

Faculty Fellow, Department of Theoretical & Applied Mechanics, UIUC, 1999-2001
Professor, Department of Mechanical and Industrial Engineering (100%), UIUC, August 1999 - August 2001
Visiting Professor, Department of Civil Engineering, National Technical University, Athens, Greece (during sabbatical leave), September 1996-January 1997
Associate Professor, Department of Mechanical and Industrial Engineering (100%), UIUC, August 1995 - August 1999
Assistant Professor, Department of Mechanical and Industrial Engineering (100%), UIUC, August 1990August 1995
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Teaching Assistant, Department of Applied Mechanics, California Institute of Technology, October 1987-June 1988

Linear and Nonlinear Dynamics and Vibrations Laboratory (LNDVL) at the University of Illinois:
The Linear and Nonlinear Dynamics and Vibrations Laboratory (LNDVL) at the University of Illinois was formed as the result of a merger, in 1998, of Dr. Alexander Vakakis's and Dr. Lawrence A. Bergman's own laboratories. With the addition of Dr. Michael McFarland to the group, and with the assistance of the Departments of Mechanical Science and Engineering (MechSE) and Aerospace Engineering, the College of Engineering, support from federal and industrial sponsors, and numerous graduate and undergraduate students the Laboratory has evolved to its present state. Current research thrusts include the implementation of passive nonlinear targeted energy transfer for aeroelastic instability (flutter) suppression, vortex-induced vibration suppression, seismic mitigation, blast protection, and vibration/shock isolation of mechanical and structural components; dynamics of non-smooth dynamical systems, with emphasis to vibro-impacting systems and systems with friction; nonlinear system identification and reduced order modeling; structural health monitoring and damage detection; essentially nonlinear structural acoustics of granular media; strongly nonlinear micro- and nano-resonators; nonlinear vibration energy harvesting; and theoretical studies of dynamical systems and bifurcations in higher dimensional settings.

Award:
The Thomas K. Caujghey Dynamics Award, 2014 to Alexander F. Vakakis.
The Thomas K. Caughey Dynamics Award is an award given annually by the Applied Mechanics Division, of American Society of Mechanical Engineers (ASME), "in recognition of an individual who has made significant contributions to the field of nonlinear dynamics through practice, research, teaching, and/or outstanding leadership" The Award is presented at the Applied Mechanics Annual Dinner at the ASME Congress.

Selected Publications:
Books:
Vakakis, A.F., Manevich, L.I., Mikhlin, Yu.V., Pilipchuk, V.N., Zevin, A.A., 1996. Normal Modes and Localization in Non-Linear Systems. Wiley, New York.
Alexander F. Vakakis (Editor), Normal Modes and Localization in Nonlinear Systems, Springer, ISBN: 978-90-481-5715-0, 2001
Jan Awrejcewicz, V. Krysko, A.F. Vakakis, Nonlinear Dynamics of Continuous Elastic Systems, Springer-Verlag, 2004, 341 pages

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King, M.E., Vakakis, A.F., 1994. Energy-based formulation for computing nonlinear normal modes in undamped continuous systems. Journal of Vibration and Acoustics 116, 332–340

Emaci, E., Nayfeh, T. A. and Vakakis, A. F.,'Numerical and experimental study of nonlinear localization in a flexible structure with vibro-impacts', Journal of Applied Mathematics and Mechanics (ZAMM) 77 (7), 1997, 527–541.

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Georgiou, I.T., Schwartz, I., Emaci, E., Vakakis, A., 1999. Interaction between slow and fast oscillations in an infinite degree-of-freedom linear system coupled to nonlinear subsystem: theory and experiment. Journal of Applied Mechanics 66, 448–459.

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