

Laboratorio di Strutture e Materiali Intelligenti
Alcuni dei Lavori Pubblicati

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- ***F.dell'Isola, S.Vidoli***, Continuum Modelling of Piezo-electro-mechanical Truss Beams: an application to vibration dumping, Archive of Applied Mechanics, Vol.68, pp.1-19, (1998).
- ***F.dell'Isola and S.Vidoli***, Bending-Waves Damping in truss Beams by Electrical Transmission Line with PZT Actuators to appear in Archive of Applied Mechanics, (1998).
- ***S.Vidoli, F.dell'Isola***, Modal coupling in one-dimensional electromechanical structured continua, Acta Mechanica, (1999).
- ***S. Vidoli, F. dell'Isola***: Vibration control in plates by uniformly distributed actuators interconnected via electric networks, European Journal of Mechanics A/Solids, 20 (3), pp. 435-456, (2001).
- ***F. dell'Isola, F. Vestroni, S. Vidoli***: A class of electro-mechanical systems: linear and nonlinear mechanics, Journal of Theoretical and Applied Mechanics, 40 (1), pp. 47-71 (2002).
- ***F. dell'Isola, M. Porfiri, S. Vidoli***, Piezo-Electro-Mechanical (PEM) structures: passive vibration control using distributed piezoelectric transducers, C. R. Mecanique 331, (2003).
- ***F. dell'Isola, E. Henneke, M. Porfiri***, Synthesis of electrical networks interconnecting PZT actuators to damp mechanical vibrations, International Symposium on Applied Electromagnetics and Mechanics in Honor of Professor K.Miya, Maggio 13-16, Tokyo, Giappone, (2003).
- ***F. dell'Isola, E. Henneke, M. Porfiri***, Piezo-electro-mechanical structures: a survey of basic concepts and methodologies, in Proc. SPIE Smart Structures and Materials, Smart Structures and Integrated Systems, Volume 5056, pp. 574-582, (2003).
- ***C. Maurini, J. Pouget e F. dell'Isola***, On a model of layered piezoelectric beams including transverse stress effect, International Journal of Solids and Structures 41, pp. 4473-4502, (2004).
- ***S. Alessandroni, U. Andreaus, F. dell'Isola, M. Porfiri***, A passive controller for multimodal vibrations of thin plates, Computers and Structures, 83, pp. 1236-1250, (2005).
- ***C.Maurini, M.Porfiri, J.Pouget***, Numerical and experimental methods for modal analysis of stepped piezoelectric beams, (2005).

- **F. dell'Isola, D. del Vescovo, C. Maurini, M. Porfiri**, Passive electric damping of structural vibrations through distributed piezoelectric coupling: critical analysis and experimental validation, ISEM 2003, International Symposium on Applied Electromagnetics and Mechanics, Maggio 14-16, Versailles, France, (2003).
- **F. dell'Isola, F. Vestroni, S. Vidoli**: Structural damage detection by distributed piezoelectric transducers and tuned electric circuits, *Research in Nondestructive Evaluation* 16 (3), 101-118, (2005).
- **C. Maurini, J. Pouget, S. Vidoli**: Distributed piezoelectric actuation of a bistable buckled beam, sottomesso per la pubblicazione su *Journal of Applied Mechanics*, (2006).
- **S. Alessandroni**, *Piezo-Electro-Mechanical Systems*, Tesi di Dottorato in Meccanica Teorica ed Applicata, (2004).
- **M. Porfiri**, Synthesis of Electric Networks interconnecting PZT actuators to efficiently damp mechanical vibrations, Master of Science in Engineering Science and Mechanics, Virginia Institute of Technology, Blacksburg VA, USA, (2000).
- **C. Maurini**, Piezoelectric composites for distributed passive electric control: beam modelling,
- modal analysis, and experimental implementation, Tesi di Dottorato in cotutela, Università degli Studi di Roma "La Sapienza", Université Paris 6 "Pierre et Marie Curie", (2005).
- **G. Croari**, Emulazione di una rete passiva tramite DSP per lo smorzamento delle vibrazioni meccaniche, Tesi di Laurea in Ingegneria Elettronica, Università di Roma "La Sapienza", (2005).
- **J. Ciambella**, Un prototipo di piastra Piezo-Elettro-Meccanica. Modellazione numerica e verifica sperimentale, Tesi di Laurea in Ingegneria Elettronica, Università di Roma "La Sapienza", (2006).