

**MONDAY**

SESSION		STB I
		Chairman: G. Rega
9 : 00 - 9 : 20	OPENING	
9 : 20 - 10 : 00	<b>Micromechanical and Nanomechanical Mass Sensors</b>	<b>Ali H. Nayfeh</b>
10 : 00 - 11 : 00	Dynamics of a thin-walled rotating composite beam	J. Warminsky, J. Latalski
	Dynamic characteristics of damped transversally vibrating beam in rotational motion	S. Zolkiewski
	Nonlinear Normal Modes, Modal Interactions and Isolated Resonance Curves	R. Kuether, L. Renson, T. Detroux, C. Grappasonni, <u>G. Kerschen</u> , and M.S. Allen
11 : 00 - 11 : 30	Break	
SESSION		STB II
		Chairman: J. WARMINSKI
11 : 30 - 12 : 30	Coupled Axial-Transverse Vibration and Stability of Rod under axial Impact	<u>A. K. Belyaev</u> , N. F. Morozov and P. E.Tovstik
	On vibrations of axially moving strings and their mathematical analysis	W.T. van Horssen
	Divergence and flutter tensile instabilities of beam-columns	<u>S.Caddemi</u> , I.Caliò and <u>F.Cannizzaro</u>
12 : 30 - 14 : 00	Lunch	
SESSION		CTL I
		Chairman:F. Casciati
14 : 00 - 14 : 30	<b>Shape Control and Vibration Morphing of Pre-Deformed Smart Structures</b>	<b><u>H. Irschik</u>, M. Krommer, and C. Zehetner</b>
14 : 30 - 15 : 30	Time optimal control of the deployment of a tethered satellite allowing for tether oscillations	A. Steindl
	Model-based control of a third order nonholonomic system	E. Jarzębowska
	Dynamical integrity of noncontact AFM with external feedback control	<u>V. Settimi</u> and G. Rega
15 : 30 - 16 : 00	Break	

**TOUR**

**TUESDAY**

SESSION		CTL II
		Chairman: S. F. Masri
9 : 00 - 9 : 30	<b>Active Damping of Cable Structures</b>	<b><u>A.Preumont</u>, A. Sangiovanni, M. Voltan, D. Alaluf</b>
9 : 30 - 11 : 0	Smart vibration control of high-speed trains using magneto-rheological dampers: analytical and experimental study	<u>Y.Q. Ni</u> , S.Q. Ye, W.H. Li and F. Gordaninejad
	Mitigation of impact-born vibrations	J. Holnicki-Szulc, <u>Ł. Jankowski</u> , and A. Mróz
	Analysis of Nonlocal and Nonlinear Electromechanically Coupled Thin Plates	<u>M. Krommer</u> , H. Irschik, Y. Vetyukov
	Suppression of Self-excited Oscillations through the Nonlinear Tuned Vibration Absorber	<u>G. Habib</u> and G. Kerschen
11 : 0 - 11 : 30	Break	
SESSION		CTL III
		Chairman: Y.Q. Ni
11 : 30 - 13 : 00	Human Induced Vibration vs. Cable-stay Footbridge Deterioration	<u>S. Casciati</u> and D. Bortoluzzi
	Sensitivity and Robustness of Volterra/Weiner Neural Network Estimation of Nonlinear Structures	<u>P. T. Brewick</u> , S. F. Masri, A. G. Chassiakos, and E. B. Kosmatopoulos
	Dynamic Transient Analysis of Systems with Material Nonlinearity: a Model Order Reduction Approach	<u>F. Casciati</u> and L. Faravelli
	Innovative modeling of TLCD controlled structures	<u>A. Di Matteo</u> , M. Di Paola, and A. Pirrotta
	Dynamic analysis of a bistable energy harvester using perturbation methods	A. Luongo, <u>S. Casciati</u> , <u>D. Zulli</u>
13 : 00 - 14 : 30	Lunch	

SESSION		STB III	
		Chairman: S. Lenci	
14 : 30 - 15 : 00	<b>Mechanical response of fabric sheets to three-dimensional bending, twisting and stretching</b>	<b>D. J. Steigmann and F. dell'Isola</b>	
15 : 00 - 16 : 00	New sufficient conditions for the Hadamard stability of nonlinear elastic solids: a strategy for seeking lower bound estimates of the critical load in bifurcation problems	P. Foti, A. Fraddosio, S. Marzano, M. D. Piccioni	
	Modeling the onset of shear boundary layers in fibrous composite reinforcements by second gradient theory	A. Madeo, M. Ferretti, and F. dell'Isola	
	Bone growth under cyclic loads	I. Giorgio, D. Scerrato, and A. Della Corte	
16 : 00 - 16 : 30	Break		
SESSION		STB IV	
		Chairman: G. Piccardo	
16 : 30 - 17 : 00	<b>A numerical analysis on elastic pantographic 2D lattices: static response and wave propagation</b>	<b>F. dell'Isola, A. Madeo, and U. Andreaus</b>	
17 : 00 - 17 : 40	Wave propagation in pantographic 2D lattices with internal discontinuities	A. Della Corte, A. Madeo, and I. Giorgio	
	A simple non-linear model for internal friction in enriched concrete	D. Scerrato, I. Giorgio, and A. Della Corte	
WEDNESDAY			
SESSION		STB V	
		Chairman: M. Belhaq	
9 : 00 - 9 : 30	<b>The Nonlinear Dynamics and Modal Stability of Cables</b>	<b>S. A. Neild, T. L. Hill and A. Cammarano</b>	
9 : 30 - 11 : 00	Numerical analysis of the time-periodic dynamic behaviour of a cable-like system under steady wind	F. Foti, L. Martinelli, F. Perotti	
	Linear and nonlinear damping effects on stability of the Ziegler column	A. Luongo, F. D'Annibale	
	Pushing over the Nicolai paradox: the nonlinear semi-simple Hopf bifurcation	A. Luongo, M. Ferretti	
	High-performance computing of basins of attraction for large-scale systems	P. Belardinelli, S. Lenci	
11 : 00 - 11 : 30	Break		
SESSION		CTL IV	
		Chairman: M.R. Hajj	
11 : 30 - 12 : 00	<b>Complex Dynamics of Pendula for Energy Harvesting</b>	<b>M. Wiercigroch</b>	
12 : 00 - 13 : 00	Controlling the limit-cycle of the Ziegler column via piezoelectric dampers	F. D'Annibale, G. Rosi, A. Luongo	
	Effect of modulated delayed feedback gain on the response of van der Pol oscillator	Mustapha Hamdi, M. Belhaq	
	Nonlinear Dynamics of a MEMS Shallow Arch Under Mixed frequency Electrostatic Excitation	Q. M. Hennawi, M.I Younis	
13 : 00 - 14 : 30	Lunch		
15 : 00 - 19 : 30	<b>TOUR</b>		
20 : 30	<b>SOCIAL DINNER</b>		
THURSDAY			
SESSION		CTL V	
		Chairman: A. Steindl	
9 : 00 - 9 : 30	<b>Vibratory energy exchanges between a pre-stressed oscillator with hardening elasto-plastic behaviour and a light pre-stressed nonsmooth system</b>	<b>M. Weiss, C.-H. Lamarque, B. Vaurigaud, A. Ture Savadkoohi</b>	
9 : 30 - 10 : 30	On the Effectiveness of the Nonlinear Energy Sink in the control of the aeroelastic response of a pitching-plunging airfoil	Y. Bichiou, Ali H. Nayfeh and M. R. Hajj	
	An experimental study of vibration control of wind-excited high-rise buildings using particle tuned mass damper	Z. Lu, D. Wang, S. F. Masri, and X. Lu	
	A smart structural control strategy to mitigate vibrations in wind turbine towers	N. Caterino, C.T. Georgakis, and A. Occhiuzzi	
10 : 30 - 11 : 00	Break		
SESSION		STB VI	
		Chairman: M. Younis	
11 : 00 - 12 : 00	An equivalent nonlinear beam model for the dynamic analysis of shear-type buildings	F. Tubino, G. Piccardo, A. Luongo	
	Nonlinear Generalized Beam Theory for post-buckling analysis of thin-walled members	A. Luongo and G. Piccardo	
	Stability of self-excited elastically restrained slender rigid-bodies in compressible uniform flow	A. Kleiman, S. Gendel, D. Degani, and O. Gottlieb	
12 : 00 - 13 : 30	Lunch		