

# Pre-nominated Session SM17

## Multibody dynamics

Co-Chair(s):        **M. Geradin (Italy)**  
                      **F. Pfeiffer (Germany)**

<b>Paper ID</b>	<b>Title</b>	<b>Authors</b>
SM17S_10026	A Geometrical Framework for Modeling and Simulation of Nonholonomic Mechanical Systems	Blajer Wojciech
SM17S_10533	Research of Movement of the Mechanism Sufficient with Elastic Part	Gakhip Ualiyev, Zair G. Ualiyev
SM17S_10624	Homoclinic Orbits Layering in the Coupled Rotor Nonlinear Dynamics and Chaotic Clock Models: a Paradi	Katica Stevanovic-Hedrih
SM17S_10647	Design of the Rear Carriage Stabilizer of a Low - Floor Articulated Trolleybus	Pavel Polach
SM17S_10779	Stabilization by Rotating Rigid Bodies for Unstable Rotation of a Rigid Body with Cavities Containing a Fluid	Yuriy N. Kononov, Tanya V. Khom'yak
SM17S_10893	Simulation of Constrained Rigid and Elastic Bodies Without Constraint Equations	Oleg Dmitrochenko, Dmitry Pogorelov, Su-Jin Park, Wan-Suk Yoo
SM17L_11020	Analysis of Grazing Bifurcations in Impact Microactuators	Xiaopeng Zhao, Harry Dankowicz
SM17L_11223	Low Energy Control of Periodic Motions in Manufacturing	Nils Guse, Werner Schiehlen
SM17S_11352	Selected Problems of Discrete - Continuous Mechanical Systems with Local Nonlinearities	Pielorz Amalia
SM17L_11361	Modeling Ballast Behavior Using a Three - Dimensional Polyhedral Discrete Element Method	Gilles Saussine, Jean-Jacques Moreau, Frederic Dubois, Catherine Cholet, Claude Bohatier, Pierre-Etienne Gautier
SM17L_11375	Efficient Generalized Speeds in a Recursive Formulation of Flexible Multibody Dynamics	Arun Banerjee, Mark Lemak

SM17S_11640	On Approximate Jacobian Matrices in Simulation of Stiff Multibody Systems	Dmitry Pogorelov
SM17S_11674	Intrinsic Formulation of Dynamics of Curvilinear Systems	Jean Lerbet
SM17S_11688	Simulation of Track Ballast	Dmitry Agapov, Dmitry Pogorelov, Aleksandr Bidulya
SM17L_11700	Configuration Control and Dynamic Analysis of Redundant Link - Type Manipulators	Kazuo Yamamoto, Masashi Okada, Kazuo Tanizawa
SM17S_11789	A Study on the Brush Noise Reduction of a DC Motor Using Multi - Body Dynamics	Tae - Won Park, Il - Ho Jung, Jong - Whi Seo
SM17S_12029	The Absolute Coordinate Formulation with Reduced Strain and Stiffening	Johannes Gerstmayr, Hans Irschik
SM17S_12071	Stability Analysis of a Tethered System	J. Valverde, J. L. Escalona, J. Dominguez
SM17L_12133	Simulation of Contacting Spatial Polyhedral Particles	Beate Muth, Peter Eberhard, Stefan Luding
SM17L_12134	Plastic Deformation by Impacts in Multibody Systems	Robert Seifried, Werner Schiehlen
SM17S_12208	A Systematic Model Reduction Method for the Control of Flexible Multibody Systems	Olivier Bruls, Pierre Duysinx, Jean-Claude Golinval
SM17S_12464	Expression on the Deflection of a Flexible Thin Rod and It's Measurement	Kohichi Miura, Tetsu Nishimura
SM17S_12537	Dynamic Analysis and Vibration Control of The Planar Beams Moving Along the Axial Direction	Naoki Sugano, Etsujiro Imanishi
SM17S_12539	Generating Optimal Motions of Constrained Multibody Systems	Guy Bessonnet, Pascal Seguin
SM17L_12569	Contact Problems in Roller Chain Drive Systems.	Sine Leergaard Pedersen
SM17L_12582	Motion and Vibration Control of the Lift Mechanism of a Ladder Truck	Katsuhisa Fujita, Yasuhiro Shiono, Mitihiko Itihara, Takuro Koseki