

# Pre-nominated Session SM2

## Contact and friction mechanics

Co-Chair(s):        **I. Goryacheva (Russia)**  
                         **A. Klarbring (Sweden), G. Szefer (Poland)**

<b>Paper ID</b>	<b>Title</b>	<b>Authors</b>
SM2S_10211	Thermocontact Interaction of Bodies of Revolution During Induction Heating	Mykola Shulzhenko, Pavlo Gontarowskiy, Yuriy Matyukhin, Mykhaylo Pantelyat, Ivo Dolezel, Bohus Ulrych
SM2S_10342	Dynamic Characteristics and Monitoring of Rubbing Surfaces Quality	Victor M. Musalimov, Y. V. Lisitsin, S. V. Orlov
SM2L_10415	Electric - Mechanical Beam - To-Beam Contact	Daniela P. Boso, Przemyslaw Litewka, Bernhard A. Schrefler, Peter Wriggers
SM2S_10459	Contact Mechanical Analysis of Elastic Multibody Structures	Herman Parland, Antero Miettinen
SM2L_10686	Existence and Uniqueness of Steady State Solutions in Thermoelastic Contact With Frictional Heating	L.-E. Andersson, A. Klarbring
SM2L_10718	FE Analysis of Bond for Smooth FRP Rods Embedded in Concrete	Hamid Reza Irannejad, Amir Reza Khoei
SM2S_10999	Modelling of Contact of Structured Materials Based on Data from Scanning Probe Microscopy	Sergey A.Chizhik, Zygmunt Rymuza, Dmitri I. Shasholko
SM2S_11008	A Universal Property of Geometrical Hardening	Graham J. Weir
SM2L_11074	Contact Optimization Problems Associated with the Wear Process	Istvan Paczelt, Zenon Mroz
SM2L_11135	Molecular Adhesive Contact for Indenters of Non - Ideal Shapes	Feodor M. Borodich, Boris A. Galanov
SM2L_11196	Adhesive Component of the Rolling Friction Force	Irina Goryacheva, Yulia Makhovskaya
SM2L_11215	Fundamental Relations for Frictional and Adhesive Nanoindentation Tests	Feodor M. Borodich, Leon M. Keer

SM2L_11365	Hertz Contact at Finite Friction and Arbitrary Profiles	Bertil Storakers, Denis Elaguine
SM2S_11452	Frictional Contact with Wear Diffusion	Meir Shillor, Mircea Sofonea, Jozef Joachim Telega
SM2S_11481	On the Contact Thermoelastic Problem with Frictional Heating, Wear and Auto - Vibrations	Jan Awrejcewicz, Yuriy Pyryev
SM2S_11611	Three-Dimensional Problem of the Contact by Doubly Connected Domain Taking into Account Roughness and Friction	Ganna Shyshkanova
SM2S_11613	Evolutions of Friction Anisotropy and Heterogeneity	Alfred Zmitrowicz
SM2S_11697	Inverse Problems of Thermoelasticity for Frictionally Interacting Layers	Victor Shevchuk, Anatoliy Yasinskyi
SM2S_11778	Multidimensional Model of Combined Dry Friction	Alexey A. Kireenkov
SM2L_11933	Numerical Modeling of Contact Fracture of Elasto - Plastic Cracked Bodies	Alexandr A. Bobylov, Yuriy A. Letser
SM2L_11987	Crack - Like and Pulse - Like Modes of Frictional Sliding along an Interface Under Dynamic Shear Loading	Demirkan Coker, Alan Needleman, Ares J. Rosakis
SM2S_12082	Experimental and Numerical Study of the Brick-Mortar Interface	Leila Abdou, Ramdane Ami Saada, Fekri Meftah, Ahmed Mebarki
SM2L_12086	Experimental and Analytical Investigation of Rubber Friction	Markus Lindner, Matthias Kroeger, Karl Popp, Holger Blume
SM2S_12097	Penalty Approximation of Impact with Coulomb Friction	Michelle Schatzman
SM2L_12246	Chaotic Response of Non - Reversible Dry Friction Oscillator	Andrzej Stefanski, Jerzy Wojewoda, Marian Wiercigroch, Tomasz Kapitaniak
SM2L_12382	A Dynamic Unilateral Contact Problem for a Cracked Body	Marius Cocou, Eliane Becache, Patrick Joly, Gilles Scarella
SM2S_12412	A Simple Model to Account for the Locking Effect Between Two Rough Surfaces under Cyclic Loading	Larissa Gorbatikh

SM2L_12553	Boundary Layers Induced by Contact of Rough Bodies	Stanislaw Stupkiewicz
SM2L_12559	The Accounting of Surface Roughness in Contact of Arbitrary Shaped Bodies Using FEM	Alexandr A. Olshevsky, Alexei A. Olshevsky, Konstantin V. Shevchenko, Vladimir I. Sakalo
SM2L_12563	Frictional Sliding of a Multislip System	Thibaut Putelat, John R. Willis
SM2L_12646	Second - Order Cone Complementarity Formulation for Quasi-Static Incremental Frictional Contact Problem in Three - Dimensional Space	Y. Kanno, A. Pinto da Costa, J. A. C. Martins
SM2S_12773	A Novel Contact Model Based on Volumetric Information	Yves Gonthier, John McPhee, Christian Lange, Jean-Claude Piedboeuf