

33rd Annual Meeting and Conference on Tire Science and Technology

Day 1 - Monday September 8, 2014

7:45 AM	Registration (<i>J.S. Knight Rotunda</i> until 5pm)	
9:00 AM	Welcome (<i>Greystone Hall Ballroom</i>)	Ric Mousseau, President
9:10 AM	Plenary Lecture: Recent Computational Advances in Contact and Friction Simulation as Applied to Tire Mechanics (<i>Greystone Hall Ballroom</i>)	Tod Laursen, President/Professor Mechanical Engineering Khalifa University of Science
10:00 AM	Break	
10:15 AM	Opening Remarks (<i>Greystone Hall Ballroom</i>)	Jason Barr, Conference Chair
10:20 AM	Session 1: Tire Performance and Industry Trends	Dan Osborne, Session Chair
10:25 AM	1.1 Tire Operational and Sustainability Tradeoffs	Marion Pottinger
10:55 AM	1.2 Application of Intelligent Tire Systems: Tire Force Model Adaptation to Tire Sensed Information	Kanwar Singh
11:25 AM	1.3 Measurement of the Two-dimensional Tread Deformation in the Contact Patch	Yi Xiong
12:00 PM	Lunch (<i>J.S. Knight Goodyear A and B</i> , sponsored by Smithers Rapra)	
1:00 PM	Session 2: New Light on Tire Technology I (Student Competition)	Michelle Hoo Fatt, Session Chair
1:05 PM	2.1 Analysis of the Stability of Tire Torsional Oscillation Under Locked-Wheel Braking	Chunjian Wang
1:35 PM	2.2 Development of a Simulink-CarSim Interaction Package for ABS Simulation of Discrete Tire Models	Karan Khanse
2:05 PM	2.3 Microtexture Road Profiling Using Image Intensity information	Boren Li
2:35 PM	2.4 A BEM/FEM Model for Tire-Pavement Interaction Noise Prediction	Yangmin Ding
3:05 PM	Break	
3:20 PM	Session 3: New Light on Tire Technology II (Student Competition)	Steve Vossberg, Session Chair
3:25 PM	3.1 Use of a Cohesive Zone Model to Predict Dynamic Tearing of Rubber	Bo Li
3:55 PM	3.2 Effect of the pores in porous rubber on water flow at the contact area	Takumi Komiyama
4:25 PM	3.3 Hyperelastic Multiscale Modeling of Polyurethane	Md Salah Uddin
4:55 PM	3.4 Material Model for Large Deformations of Fiber-reinforced Rubberlike Materials with Different Response in Tension and Compression	Qian Li
5:30 PM	Close of Day 1	

Day 2 – Tuesday September 9, 2014

7:15 AM	Registration (<i>J.S. Knight Rotunda</i> until noon)	
8:30 AM	Keynote Address: The New Reality of Innovation (<i>J.S. Knight Goodyear A and B</i>)	Michael Hochschwender, CEO/President Smithers Rapra
9:40 AM	Opening Remarks (<i>Greystone Hall Ballroom</i>)	Jason Barr, Conference Chair
9:45 AM	State of the Society (<i>Greystone Hall Ballroom</i>)	Ric Mousseau, President
10:05 AM	Session 4: Noise, Vibration, and Harshness	Lin Kung, Session Chair
10:10 AM	4.1 A Study of Tire Contribution to Vehicle Comfort and Interior Noise Using Modal Criteria	Achillefs Tsotras
10:40 AM	4.2 The Simulation of Rolling Noise Based on the Mixed Lagrange-Euler Method	Yintao Wei
11:10 AM	Break	
11:25 AM	Session 5: Tire Road Interaction I	Joel Lazeration, Session Chair
11:30 AM	5.1 Holistic Analysis of the Coupled Vehicle-Tire-Pavement-System for the Design of Durable Pavements	Michael Kaliske
12:00 PM	5.2 Off-Road Vehicle Dynamics Analysis Using a Lumped-Parameter Three-Dimensional Tire Model	Shahyar Taheri
12:30 PM	Lunch (<i>J.S. Knight Goodyear A and B</i> , lunch is provided)	
1:15 PM	ITEC Exhibit Open Session (<i>J.S. Knight Exhibit Hall 1 and 2</i>)	
2:25 PM	Session 6: Tire Road Interaction II	Jan Terziyski, Session Chair
2:30 PM	6.1 Investigations on Winter Tire Characteristics on Different Track Surfaces Using a Statistical Approach	Bernd Wassertheurer
3:00 PM	6.2 A Comparative Study of Indoor and Outdoor Tire Tractive Performance on Ice	Anudeep Bhoopalam
3:30 PM	6.3 Validation of a Frustrated Total Internal Reflection Test Bench for Tire Footprint Pressure Measurement	Andrea Zanoni
4:00 PM	6.4 Effect of Measurement Frequency and Test Duration on the Inflation Pressure Loss Rate (IPLR) of Radial Medium Truck Tires	Jonathan Martens
4:30 PM	6.5 A Vehicle Mountable Road Profiling System Based on an RGB-D Sensor and Feature Matching	Howard Brand
5:00 PM	End of Technical Presentations	
5:10 PM	Reception (<i>Greystone Hall Billiard Room and Barrister's Lounge</i>)	
6:00 PM	Banquet (<i>J.S. Knight Karl S. Hay</i>)	
6:50 PM	Awards	
7:10 PM	Dinner Speaker: Chariots of Tut and Moses	Bela Sandor, Professor Emeritus of Engineering Physics University of Wisconsin-Madison
8:00 PM	Close of Day 2	

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Day 3 - Wednesday September 10, 2014

7:30 AM	Registration (<i>J.S. Knight Rotunda</i> until 10am)		
8:00 AM	Opening Remarks (<i>Greystone Hall Ballroom</i>)		Jason Barr, Conference Chair
8:05 AM	Session 7: Tire Vehicle Systems		
8:10 AM	7.1	Interaction of a Slip-Based Anti-Lock Braking System with Tire Torsional Dynamics	Jeffery Anderson
8:40 AM	7.2	Influence of Tire Operating Conditions on ABS Performance	Srikanth Sivaramakrishnan
9:10 AM	7.3	Tire ABS-braking prediction with tire tread block simulations and lab tests	Pavel Ignatyev
9:40 AM	7.4	TameTire: Introduction to the Model	Ryan Pawlowski
10:10 AM	Break		
10:25 AM	Session 8: Tire Vehicle Modeling		
10:30 AM	8.1	Importance of Capturing Non-linear Viscoelastic Material Behavior in Tire Rolling Simulations	Will Mars, Session Chair Biswanath Nandi
11:00 AM	8.2	Impact of Initial Thermal Strain and Viscoelasticity of Hybrid/Merged Cords on Tire Performance	Xianwei Meng
11:30 AM	8.3	A New Tool for Tire Handling Performance Evaluation	Yaswanth Siramdasu
12:00 PM	8.4	TIMIS - a semi-physical, fast computing tire handling model	Dirk Henrichmüller
12:30 PM	Conference Closing Remarks		
12:35 PM	Lunch (<i>J.S. Knight Goodyear A and B</i> , lunch is available for purchase)		