37th Annual Meeting and Conference on Tire Science and Technology

Day 1 - Tuesday September 11, 2018
All Sessions take place in Akron/Summit Ballroom

Time				
7:00 AM	Registration (Fairlawn Hilton open until 5pm)			
8:00 AM	Welcome (Akron/Summit Ballroom)			**Randy Jenniges**, *President of Society*
8:10 AM	**Keynote Speaker**			
		How Global Automotive Trends Will Shape Innovation in the Tire Industry		**Jim Popio**, *Smithers Rapra North America*
9:10 AM	Opening Remarks			**Nathan Billy**, *Conference Chair*
9:15 AM	**Session 1: Tire Performance**			**Gautam Barot,** *Kumho Tire*
9:20 AM	1.1	Variable Stiffness Approach to Optimize Tyre Rolling Resistance		**Shivam Mangal**, *JK Tyre & Ind. Ltd.*
9:50 AM	1.2	The effects of Different Tire Operating Conditions on Transient Lateral Tire Response		**Henning Olsson**, *Calspan Corp.*
10:20 AM	1.3	Optimization of Cure Cycle and Tread Compound for Rolling Resistance Reduction of Truck Bus Bias Tires		**Subash Iyanar**, *JK Tyre & Ind. Ltd.*
10:50 AM	Break / Refreshments			
11:10 AM	**Session 2: Emerging Technologies**			**Jan Terziyski,** *Nexen Tire*
11:15 AM	2.1	Experimental Investigation on the Dynamic Response of Piezoelectric Transducer on Tyre Specimens		**Ali Kubba**, *Fusion Innovations Ltd*
11:45 AM	2.2	Multi-chamber Tyre Simulation and Tests Data for Low Rolling Resistance Tyre		**Gregory Hall**, *Fusion Innovations Ltd*
12:15 PM	Lunch (Provided)			
1:30 PM	**Session 3: New Light on Tire Technology**			**Celal Batur,** *Univ. of Akron*
1:35 PM	3.1	Effects of Copolymer Sequence on Adsorption and Dynamics Near Nanoparticle Surfaces in Simulated Polymer Nanocomposites		**Alex J Trazkovich**, *The Ohio State University*
2:05 PM	3.2	Aerodynamic Study of Flow Around a Tire on a Rolling Road		**Stuart Gambill,** *The University of North Carolina at Charlotte*
2:35 PM	3.3	Prediction of Pavement Texture and Deformation Influence on Rolling Resistance Using Finite Element Analysis		**Tianchi Tang,** *Delft University of Technology*
3:05 PM	Break / Refreshments			
3:25 PM	**Session 4: New Light on Tire Technology**			**Yaswanth Siramdasu,** *Hankook Tire*
3:30 PM	4.1	Comparison of Analytical Models for Contact Mechanics Parameters with Numerical Analysis and Experimental Results		**Vadakkeveetil Sunish,** *Virginia Tech*
4:00 PM	4.2	Obtaining Operating Shapes of a Rotating Tire using Digital Image Correlation		**Vanshaj Srivastava,** *Kettering University*
4:30 PM	4.3	Test and Simulation Analysis of Tire Inflation Pressure Loss		**Xinyu Zhu**, *Jiangsu University*
5:00 PM	Reception			
6:00 PM	**Awards Banquet** Dinner Speaker: ***Dr. Santo A. Padula, II, Ph.D.*** *Materials Research Engineer, NASA Glenn Research Center*			
8:00 PM	Close of Day 1			

		Day 2 - Wednesday September 12, 2018	
		All Sessions take place in Akron/Summit Ballroom	
7:30 AM		Registration (Fairlawn Hilton open until 5pm)	
8:00 AM		Opening Remarks	**Nathan Billy**, *Conference Chair*
8:05 AM		**Session 5: Simulation**	**Kejing Li**, *Hankook Tire Co.*
8:10 AM	5.1	Improvement of Physical Understanding of Tire Transient Handling Behavior	**Pavel Sarkisov**, *Technische Universität Dresden*
8:40 AM	5.2	Incremental Critical Plane Analysis of FMVSS 119 Tire Durability Testing	**Will Mars**, *Endurica*
9:10 AM		**Report to the Membership and the Future of the Society**	**Randy Jenniges**, Current President **Jerry Potts**, Incoming President **Will Mars**, Incoming Vice President
10:10 AM		Break / Refreshments	
10:30 AM		**Session 6: Data Analytics**	**Janice Tardiff**, *Ford Motor Co.*
10:35 AM	6.1	The Art of (Virtual) Rubber Compounding	**Zak Kohler**, *Cooper Tire & Rubber*
11:05 AM	6.2	Application of Machine Learning Techniques to Tire Related Datasets	**Kanwar Bharat Singh**, *Goodyear Tire & Rubber*
11:35 AM		Lunch (Provided)	
1:00 PM		**Plenary Lecture**	
		An update review of Consumer Reports tire testing. Testing evolves to stay in touch with the consumer	**Gene Petersen**, *Consumer Reports*
2:00 PM		**Session 7: Tire Vehicle System**	**Will Mars,** *Endurica*
2:05 PM	7.1	Understanding Tire Dynamic Characteristics for Vehicle Dynamics Ride using Simulation Methods	**Yaswanth Siramdasu**, *Hankook Tires*
2:35 PM	7.2	Influence of Vehicle Boundary Conditions on the Forces Transmitted below 400Hz between Wheel and Hub	**Charles H. Boston,** *Continental Reifen Deutschland GmbH*
3:05 PM	7.3	Vehicle Dynamics Hybrid Simulation with Physical Tires	**Tom Stachel,** *MTS Systems Corporation*
3:35 PM		Break / Refreshments	
3:55 PM		**Session 8: Tire & Road Interaction**	**Matt Schroeder,** *Cooper Tire & Rubber*
4:00 PM	8.1	Experimental Investigation and Simulation of Aircraft Tire Wear	**Stephanie Kahms**, *Leibniz University Hannover*
4:30 PM	8.2	Objective Tire Footprint Segmentation Assessment from High Speed Videos	**Duc Fehr,** *Goodyear Tire & Rubber*
5:00 PM		Close of Conference	**Nathan Billy**, *Conference Chair*

37th Annual Business Meeting and Conference on Tire Science and Technology

September 11-12, 2018
Hilton Akron/Fairlawn Hotel
Akron, Ohio

Schedule Overview (detailed schedule inside)

Day 1 - Tuesday, Sept 11	
7:00a	**_Registration:_** Foyer (all day)
	Day 1 Presentations: Akron/Summit Ballroom
8:00a	**_Welcome:_** _Randy Jenniges, President_
8:10a	**_Keynote Address_** _Jim Popio_ _Smithers Rapra, North America_
9:10a	**Opening** _Nathan Billy, Conference Chair_
9:15a	**Tire Performance** 3 Presenters
10:50a	**_Break / Refreshments_**
11:10a	**Emerging Technologies** 2 Presenters
12:15p	**_Lunch(Provided)_**
1:30p	**New Light on Tire Technology I** 3 Presenters
3:05p	**_Break / Refreshments_**
3:25p	**New Light on Tire Technology II** 3 Presenters
5:00p	Reception: Conrad Ballroom
6:00p	**Banquet: Conrad Ballroom**
8:00p	Close of Day 1

Day 2 - Wednesday, Sept 12	
7:00a	**_Registration_** (half day)
	Day 2 Presentations: Akron/Summit Ballroom
8:00a	**_Opening:_** _Joshua Herron, Conference Chair_
8:05a	**Simulation** 2 Presenters
9:10a	**Report to Members** _Randy Jenniges, President_
10:10a	**_Break / Refreshments_**
10:30a	**Data Analytics** 2 Presenters
11:35a	**_Lunch(Provided)_**
1:00p	**Plenary Lecture** _Eugene Petersen_ _Consumer Reports_
2:00p	**Tire Vehicle System** 3 Presenters
3:35p	**_Break/Refreshments_**
3:55p	**Tire & Road Interaction** 2 Presenters
5:00p	**Closing Remarks**