

37th Annual Meeting and Conference on Tire Science and Technology

Day 1 - Tuesday September 11, 2018

All Sessions take place in Akron/Summit Ballroom

7:00 AM	Registration (Fairlawn Hilton open until 5pm)		
8:00 AM	Welcome (Akron/Summit Ballroom)		Randy Jenniges , <i>President of Society</i>
8:10 AM	Keynote Speaker		
	How Global Automotive Trends Will Shape Innovation in the Tire Industry		Jim Popio , <i>Smithers Rapra North America</i>
9:10 AM	Opening Remarks		Nathan Billy , <i>Conference Chair</i>
9:15 AM	Session 1: Tire Performance		Gautam Barot , <i>Kumho Tire</i>
9:20 AM	1.1	Variable Stiffness Approach to Optimize Tyre Rolling Resistance	Shivam Mangal , <i>JK Tyre & Ind. Ltd.</i>
9:50 AM	1.2	The effects of Different Tire Operating Conditions on Transient Lateral Tire Response	Henning Olsson , <i>Calspan Corp.</i>
10:20 AM	1.3	Optimization of Cure Cycle and Tread Compound for Rolling Resistance Reduction of Truck Bus Bias Tires	Subash Iyanar , <i>JK Tyre & Ind. Ltd.</i>
10:50 AM	Break / Refreshments		
11:10 AM	Session 2: Emerging Technologies		Jan Terziyski , <i>Nexen Tire</i>
11:15 AM	2.1	Experimental Investigation on the Dynamic Response of Piezoelectric Transducer on Tyre Specimens	Ali Kubba , <i>Fusion Innovations Ltd</i>
11:45 AM	2.2	Multi-chamber Tyre Simulation and Tests Data for Low Rolling Resistance Tyre	Gregory Hall , <i>Fusion Innovations Ltd</i>
12:15 PM	Lunch (Provided)		
1:30 PM	Session 3: New Light on Tire Technology		Celal Batur , <i>Univ. of Akron</i>
1:35 PM	3.1	Effects of Copolymer Sequence on Adsorption and Dynamics Near Nanoparticle Surfaces in Simulated Polymer Nanocomposites	Alex J Trazkovich , <i>The Ohio State University</i>
2:05 PM	3.2	Aerodynamic Study of Flow Around a Tire on a Rolling Road	Stuart Gambill , <i>The University of North Carolina at Charlotte</i>
2:35 PM	3.3	Prediction of Pavement Texture and Deformation Influence on Rolling Resistance Using Finite Element Analysis	Tianchi Tang , <i>Delft University of Technology</i>
3:05 PM	Break / Refreshments		
3:25 PM	Session 4: New Light on Tire Technology		Yaswanth Siramdasu , <i>Hankook Tire</i>
3:30 PM	4.1	Comparison of Analytical Models for Contact Mechanics Parameters with Numerical Analysis and Experimental Results	Vadakkeveetil Sunish , <i>Virginia Tech</i>
4:00 PM	4.2	Obtaining Operating Shapes of a Rotating Tire using Digital Image Correlation	Vanshaj Srivastava , <i>Kettering University</i>
4:30 PM	4.3	Test and Simulation Analysis of Tire Inflation Pressure Loss	Xinyu Zhu , <i>Jiangsu University</i>
5:00 PM	Reception		
6:00 PM	Awards Banquet		
	Dinner Speaker: Dr. Santo A. Padula, II, Ph.D. <i>Materials Research Engineer, NASA Glenn Research Center</i>		
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 , <i>Conference Chair</i>
8:05 AM	Session 5: Simulation		Kejing Li , <i>Hankook Tire Co.</i>
8:10 AM	5.1	Improvement of Physical Understanding of Tire Transient Handling Behavior	Pavel Sarkisov , <i>Technische Universität Dresden</i>
8:40 AM	5.2	Incremental Critical Plane Analysis of FMVSS 119 Tire Durability Testing	Will Mars , <i>Endurica</i>
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 , <i>Ford Motor Co.</i>
10:35 AM	6.1	The Art of (Virtual) Rubber Compounding	Zak Kohler , <i>Cooper Tire & Rubber</i>
11:05 AM	6.2	Application of Machine Learning Techniques to Tire Related Datasets	Kanwar Bharat Singh , <i>Goodyear Tire & Rubber</i>
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 , <i>Consumer Reports</i>
2:00 PM	Session 7: Tire Vehicle System		Will Mars , <i>Endurica</i>
2:05 PM	7.1	Understanding Tire Dynamic Characteristics for Vehicle Dynamics Ride using Simulation Methods	Yaswanth Siramdasu , <i>Hankook Tires</i>
2:35 PM	7.2	Influence of Vehicle Boundary Conditions on the Forces Transmitted below 400Hz between Wheel and Hub	Charles H. Boston , <i>Continental Reifen Deutschland GmbH</i>
3:05 PM	7.3	Vehicle Dynamics Hybrid Simulation with Physical Tires	Tom Stachel , <i>MTS Systems Corporation</i>
3:35 PM	Break / Refreshments		
3:55 PM	Session 8: Tire & Road Interaction		Matt Schroeder , <i>Cooper Tire & Rubber</i>
4:00 PM	8.1	Experimental Investigation and Simulation of Aircraft Tire Wear	Stephanie Kahms , <i>Leibniz University Hannover</i>
4:30 PM	8.2	Objective Tire Footprint Segmentation Assessment from High Speed Videos	Duc Fehr , <i>Goodyear Tire & Rubber</i>
5:00 PM	Close of Conference		Nathan Billy , <i>Conference Chair</i>

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**