

2022 Tire Society Conference Program

Presentation	Title	Author(s)	Affiliation(s)
Keynote Address	"A Future View of Mobility"	Alexis Garcin	Chairman and President, Michelin North America, Inc.
Plenary Lecture	"The Road Ahead - Technology and Policy in the Tire Industry"	Tracey Norberg	Senior Vice President and General Counsel, US Tire Manufacturers Association
Banquet Speech	" Round and Green - Engineering for Agriculture "	Dr. Nohoon Ki	Engineering Manager, John Deere
Panel Discussion	The Future of Tire Testing	Moderator - Heather Bobbitt Christian Bachmann Jon Darab Matt Kent Henning Olsson Mike Stackpole	General Motors FKA GmbH GCAPS Smithers Calspan Corporation Stackpole Engineering Services
S1. Durability 1	Understanding Cut Resistance and Strengthening Mechanisms: Reinforcement and Size Effect for Tire Rubbers	Shing-Chung J. Wong, Xin Wang Soon W. Moon	University of Akron Syncrude Canada Ltd.
S1. Durability 2	Ozone and Fatigue Resistance of NR/EPDM blends in Tire Sidewall Applications	WV Mars,Ethan Steiner Erick Sharp,Jaden Slovensky Yang Chen	Endurica ACE Products and Consulting Michigan State University
S1. Durability 3	Novel Method Using Symmetric Belt Arrangement to Minimize Belt Edge Separation in TBR Tire	Ankush Yadav, Ashish Sharma, Jitendra Mahajan	Ralsion Tyres
S2. Emerging Technology 4	Development of Tire Performance Prediction Model and Design Review System Using CNN Deep Learning Model	Youngsam Yoon, Jaehun Lee, Kiho Yum Lee, Sang-Kwon Lee SungWook Hwang	Hyundai Motor Company Inha University Nexen Tire Company
S2. Emerging Technology 5	Tires for Mars Rovers: Reinforcing BR and BR/VMQ Compounds with Carbon Black, Nano-CaCO ₃ or Silica for Good Low-Temperature Dynamic-Mechanical Performance	Rafal Anyszka, Li Jia Anke Blume	University of Twente The University of Akron Lodz University of Technology
S3. Noise 6	A study on the Mid-frequency Tire Sourced Cabin Noise in Electrical Vehicles (EV's)	Pejman Razi, Jay Ahn, Robert L. Wheeler	Hankook Tire & Technology-America
S3. Noise 7	Pass-By Noise Prediction	John Lewis, Phil Sorter	SIMULIA
S4. Student 8	The Influence of the Split in Fundamental Air-Cavity Mode on the Force Amplification at the Wheel Hub for a Rolling Tire both in Computational Simulation and Experimental Approach	Won Hong Choi, Kyosung Choo, J. Stuart Bolton	Ray W. Herrick Laboratories, Purdue University
S4. Student 9	Simultaneous Determination of Additive Concentration in Rubber using ATR-FTIR Spectroscopy	Stephen Merriman, Ali Dhinojwala Dinesh Chandra, David Benko Marc Borowczak	University of Akron Goodyear Tire & Rubber Company Goodyear Tire & Rubber Company(retired)
S4. Student 10	Automated Tire Mode Shape Classification using Zernike Annular Moments and Flattening	Junhyeon Seo, Sudharsan Parthasarathy, Siddharth Jain, Rakesh K. Kapania	Virginia Polytechnic Institute and State University
S5. Thermal Evaluation of Tires 11	Thermally Sensitive Tire Model for High Performance Vehicle Applications	Cedric Mousseau, John Collier, Rich Reichenbach, Edward Mc Lennon, and Heather Bobbitt Raghuram Thiagarajan	GM Milford Proving Grounds Pratt and Miller Engineering
S5. Thermal Evaluation of Tires 12	Thermo-mechanical Modeling of the Aircraft Tire-Runway Contact for Transient Maneuvers	Stephanie Kahms, Michael Hindemith, Matthias Wangenheim	Leibniz University Hannover
S6. Tire Testing 13	Contact Patch Pressure Behaviors in High Speed Dynamic Conditions	Marco Furlan, Mateo Gladstone, Matthew Strang, Henning Olsson	Calspan Corporation
S6. Tire Testing 14	DIC, the Ultimate Non-contact Sensor for Dynamic Tire Testing	Justin Bucienski, Author	Trilion Quality Systems LLC
S6. Tire Testing 15	Investigation on Tire Performance and Testing Under Longitudinal and Combined Slip States – Induced Versus Resultant Wheel Related Slip	Ventseslav Yordanov Mark Harris, Christian Bachmann Konstantin Sedlan	IKA Aachen University FKA GmbH Volkswagen AG
S7. Tire/Road Interaction 16	Target Conflict for Force Transmission in Lateral and Longitudinal Direction of Rotated Tread Block Samples on Different Road Surfaces (Dry, Wet, Snow and Ice)	Jonas Alexander Heidelberger, Matthias Wangenheim Klaus Wiese, Burkhard Wies, Christoph Bederna	Institute for Dynamic and Vibration research Continental tire
S7. Tire/Road Interaction 17	A Study on Self-Sustained Vibrations of a Tire Operating Above Peak Friction	Carlo Lugaro Mohsen Alirezaei Yi Li	Siemens Digital Industries, Eindhoven University, GCAPS
S7. Tire/Road Interaction 18	On the Influence of Tire Contact Patch Model Complexity on High Frequency Road Profile Simulation	Girish R. Radhakrishnan, Zakariás Erődsi, Pedro Calorio, Bruno Finco, Claude J. Rouelle	OptimumG, LLC
S8. Tread Wear 19	Tire Wear Investigation of EVs Using KOKUSAI's Tire Wear Tester	Günter Leister, Markus Winter	TWMS Consulting
S8. Tread Wear 20	Factors Influencing Wear of Tyre Tread Rubber	P. Ghosh, C. Ajay, R. Mukhopadhyay	Hari Shankar Singhania Elastomer & Tyre Research Institute
S9. Virtual Tire 21	Generation of SWIFT Models Virtually Using FEA: Application to Cleat Simulations	Yaswanth Siramdasu Gibin Gil	Hankook Tire & Technology America Hankook Tire & Technology Korea
S9. Virtual Tire 22	Identification of Characteristic Tire Parameters for the Virtual Steering System Design	Dominic Neumann, Mario Weinberger Mustaba Ahmadi Dieter Schramm	BMW Group Hamburg University of Applied Sciences University of Duisburg-Essen
S9. Virtual Tire 23	The Benefits of Virtual Tire Evaluation using a Driver in the Loop Simulator (DiL)	Kelly Holshue, Gary Newton, Jr.	VI-grade, Inc.