

Registration Fees

Fee includes luncheon & dinner banquet

Current⁺ or New/Renewing* Members:

Regular.....	\$200.00
Retiree / Unemployed.....	\$100.00
Full-Time Student	\$50.00
Non-Member.....	\$250.00

* A current member renewed membership /paid dues following the previous annual conference and prior to the current conference.

* Membership fee also required (see below)

Register online at www.tiresociety.org.

To ensure the timely preparation of the conference materials, advanced registration before September 1, 2011 is highly recommended.

Membership Fees[#]

Regular	\$100.00
Retiree / Unemployed.....	\$25.00
Full-Time Student	\$15.00

[#] Benefits include free online access to journal articles, discounts to printed journal and conference

Hotel Accommodations

A block of rooms has been reserved at special rates for Tire Society conference participants at

Hilton Akron/Fairlawn

3180 W. Market Street.

Akron, Ohio, USA 44333

Telephone: (800) 445-8667

Web: www.akronhilton.com

Special Conference Rate: \$119 single
(Rate guaranteed before Sept. 1, 2011.)

Parking

Free parking is available adjacent to the Hotel.

The Tire Society

P.O. Box 1502

Akron OH 44309-1502, USA

Phone: (330) 972-7814

Fax: (330) 972-5269

Email: office@tiresociety.org

Advance Conference Schedule

Quick Reference

Pre-Conference - Monday, Sept 12

6:00p ... **Editorial Bd. Dinner:** Beau's Grille

6:00p ... **Program & Session Chair Dinner:** Beau's

Day 1 - Tuesday, Sept 13

7:00a ... **Registration** (all day)

7:00a ... **Breakfast - Day 1 Presenters, Session Chairs:** Beau's Grille

Day 1 Presentations: Akron/Summit Ballroom

8:00a **Opening:** Saied Taheri, Program Chair

8:10a **Welcome:** Dale Moseley, President

8:15a **Keynote Address:** Terry Connolly,
Director of Tire & Wheel Systems, GM

8:45a **Friction & Wear:** 3 Presenters

10:05a..... **Break / Refreshments**

10:15a... **Student I:** 4 Presenters

12:00p **Lunch:** Provided, Conrad Ballroom
Distinguished Achievement Award Presentation

1:30p **Student II:** 4 Presenters

3:15p **Break / Refreshments**

3:30p **Rolling Resistance:** 3 Presenters

4:50p **Day 1 Technical Sessions Closing**

Awards Banquet: Conrad Ballroom

5:30p **Reception**

6:30p **Dinner Banquet**

7:00p **Best Paper Awards:** Gary Tubb, Awards Chr

7:20p **Dinner Speaker:** Don Palac, NASA Glenn

8:00p **End of Day 1**

Day 2 - Wednesday, Sept 14

7:00a **Breakfast - Day 1 Presenters, Session**

Chairs: Beau's Grille

8:00a **Registration** (half day)

Day 2 Presentations: Akron/Summit Ballroom

8:00a **Opening:** Saied Taheri, Program Chair

8:10a **State of Society:** Dale Moseley, President

8:30a **FEA I:** 3 Presenters

9:50a **Break / Refreshments**

10:05a... **FEA II:** 3 Presenters

11:25a... **Plenary Lecture:** Steve Karamihas,
U. of Michigan Transportation Research Inst.

12:00a **Advisory Board Meeting**

12:00a **Lunch Break**

1:15p **Modeling & Simulation:** 3 Presenters

2:35p **Break / Refreshments**

2:50p **Testing:** 3 Presenters

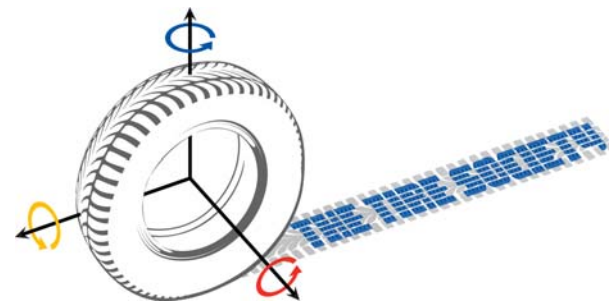
4:10p **Break**

4:15p **Tire Road Contact:** 2 Presenters

5:10p **Closing Remarks**

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Advance Program Schedule & Registration Information



30th Annual Meeting and Conference on Tire Science and Technology

**September 13 & 14, 2011
Hilton Akron/Fairlawn
Akron, Ohio, USA**

www.tiresociety.org

Advance Presentation Schedule (Times, Presentation Titles & Presenters)

Conference Program Committee

Chair: *Saied Taheri*, Virginia Tech
Co-Chair: *Lin Kung*, Nexen Tire

Tuesday September 13, 2011

8:15 AM-8:45 AM **Keynote Address: Does Re-Inventing the Automobile Include Re-Inventing the Tire?**
Terry Connolly, Director, General Motors Tire/Wheel Systems

8:45 AM-10:05 AM **Friction and Wear**
Chair: *James Cuttino*, Camber Ridge, LLC

8:50 AM - 9:15 AM **Analysis of the Influence of Driving Dynamic Parameters On Tire Marks**,
Gunther Seipel, Technische Universität Darmstadt
9:15 AM - 9:40 AM **An Analytic Thermo Dynamical Approach to Friction of Rubber on Ice**,
Klaus Wiese, Continental Tire
9:40 AM - 10:05 AM **Lab Test Based Wear Performance Prediction of Tread Compounds**,
Frank Schmerwitz, Continental Tire

10:15 AM-12:00 PM **New Light on Tire Technology 1 (Student Competition);**
Chair: *Marion Pottinger*, M'gineering

10:20 AM - 10:45 AM **A Novel Approach for Thermomechanical Analysis of Stationary Rolling Tires within An ALE-Kinematic Framework**
Anuwat Suwannachit, Leibniz Universität Hannover
10:45 AM - 11:10 AM **Anti-Lock Brake System Control Using An Innovative Intelligent Tire-Vehicle Integrated Dynamic Friction Estimation Technique**
Kanwar Bharat Singh, Virginia Tech
11:10 AM - 11:35 AM **Accelerometer Measurements of Tire Carcass Vibrations and Implications to Tire-Pavement Noise**
Tyler Dare, Purdue University
11:35 AM - 12:00 PM **Interaction of Anti-Lock Braking Systems with Tire Torsional Dynamics**
John Adcox, Clemson University

12:00 AM-1:30 PM **Lunch & Distinguished Achievement Award Presentation**,
Award Chair: *Steve Vossberg*, Bridgestone Americas

1:30 PM-3:15 PM **New Light on Tire Technology 2 (Student Competition);**
Chair: *Kory Smith*, Bridgestone Americas

1:35 PM - 2:00 PM **An Implicit to Explicit FEA Solving of Tire F&M with Detailed Tread Blocks**
Zhao Li, University of Science and Technology China
2:00 PM - 2:25 PM **Measurement of Water Film Thickness Due to Sipe Edges of Studless Tire**
Akihiro Takim, Kanazawa University
2:25 PM - 2:50 PM **Evaluation of the Holistic Method to Size a 3-D Wheel-Soil Model**
Timothy Reeves, Clemson University
2:50 PM - 3:15 PM **Observation of Water Behavior In the Contact Area Between Porous Rubber and Mating Surface During Sliding**
Yusuke Minami, Kanazawa University

3:30 PM-4:50 PM **Rolling Resistance;**
Chair: *Patrick Keating*, Yokohama Tire

3:35 PM - 4:00 PM **On Road Fuel Consumption Testing to Determine the Sensitivity Coefficient Relating Changes In Fuel Consumption to Changes In Tire Rolling Resistance**
Calvin Bradley, Michelin Americas
4:00 PM - 4:25 PM **How Low Can We Go - A Study On Minimum Rolling Resistance**
Timothy Rhyne, Michelin Americas
4:25 PM - 4:50 PM **Tire Fuel Efficiency - Rolling Resistance, Traction, Tread Wear - the Optimum Oil to Get You There**
Steven Tranguch, H&R Group US

7:00 PM-7:20 PM **Awards Banquet - Superior Paper Awards Presentation**
Awards Chair: *Gary Tubb*, Goodyear Tire (Retired)

7:20 PM-8:00 PM **Awards Banquet - Dinner Speaker: Future Space Exploration Technology Challenges**
Donald Palac, NASA Glenn

Wednesday September 14, 2011

8:10 AM-8:30 AM **State of The Society**
President: *Dale Moseley*, Goodyear Tire

8:30 AM-9:50 AM **FEA I**
Chair: *Mohammed Sobhanie*, Goodyear Tire

8:35 AM - 9:00 AM **Optimized and Robust Design of Tires Based On Numerical Simulation**
Michael Kaliske, Technische Universität Dresden
9:00 AM - 9:25 AM **Investigating Applicability of the Meshfree Method to the Structural Analysis of Tires**
Takehiro Noda, Toyo Tire & Rubber
9:25 AM - 9:50 AM **Effectiveness of Tetrahedral Finite Elements In Modeling Tread Patterns for Rolling Simulations**
Harish Surendranath, Dassault Systemes SIMULIA

10:05 AM-11:25 AM **FEA II**
Chair: *Josh Herron*, Hankook Tire

10:10 AM - 10:35 AM **Prediction of Temperature Distribution of Steady State Rolling Tires**
Emily Ledbury, Mississippi State University
10:35 AM - 11:00 AM **An Enhanced Finite Element Tire Model for Vehicle Crash Simulations**
Emmanuel Bolarinwa, Federal Highway Administration US
11:00 AM - 11:25 AM **Effects of Road Surface Texture to Tire Structural Borne Noise**
Xianwei Meng, Goodyear Tire

11:25 AM-12:00 PM **Plenary Lecture: The State of Research on Smooth, Safe, and Quiet Pavements in the U.S.**
Steve Karamihas, UMTRI

1:15 PM-2:35 PM **Modeling & Simulation**
Chair: *Victor Li*, Goodyear Tire

1:20 PM - 1:45 PM **Pull: The Science of a Nuisance**
Marion Pottinger, M'gineering, LLC.
1:45 PM - 2:10 PM **Efficient Acquisition of Tire Data & Its Application In Vehicle Handling Simulation**
Henning Olsson, OptimumG
2:10 PM - 2:35 PM **Nonlinear Viscoelastic Constitutive Law for Unvulcanized Carbon Black Filled Rubbers**
Mahmoud Assaad, Goodyear Tire

2:50 PM-4:05 PM **Testing**
Chair: *Randy Cooper*, Yokohama Tire

2:55 PM - 3:20 PM **Advances In Fully Automatic Splice Quality Monitoring**
Oliver Scholz, Fraunhofer Institute for Integrated Circuits IIS
3:20 PM - 3:45 PM **Development of the Measurement Method of a Rotating Tire Surface Strain**
Ryoji Hanada, Tire Performance Simulation Lab. R&D Center, Japan
3:45 PM - 4:10 PM **Tire Testing - Meeting the Needs of Tomorrow**
James Cuttino, Camber Ridge, LLC

4:15 PM-5:10 PM **Tire Road Contact**
Chair: *Xianwei Meng*, Goodyear Tire

4:20 PM - 4:45 PM **Experimental and Computational Studies of Contact Mechanics for Tire Longitudinal Response**
Jacob Kidney, Bridgestone Americas
4:45 PM - 5:10 PM **Towards Tire-Road Contact Stresses and Pavement Design**
Morris De Beer, CSIR, South Africa

This is an advance schedule and is subject to change; refer to the web site for updates.