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 materials.

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.

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 Chair
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
### 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

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Presenter/Institution</th>
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<tbody>
<tr>
<td>1:35 PM - 2:00 PM</td>
<td>An Implicit to Explicit FEA Solving of Tire F&amp;M with Detailed Tread Blocks</td>
<td>Zhao Li, University of Science and Technology China</td>
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<tr>
<td>2:00 PM - 2:25 PM</td>
<td>Measurement of Water Film Thickness Due to Sipe Edges of Studless Tire</td>
<td>Akhiro Takim, Kanazawa University</td>
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<tr>
<td>2:25 PM - 2:50 PM</td>
<td>Evaluation of the Holistic Method to Size a 3-D Wheel-Soil Model</td>
<td>Timothy Reeves, Clemson University</td>
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<tr>
<td>2:50 PM - 3:15 PM</td>
<td>Observation of Water Behavior In the Contact Area Between Porous Rubber and Mating Surface During Sliding</td>
<td>Yusuke Minami, Kanazawa University</td>
</tr>
<tr>
<td>3:30 PM-4:50 PM</td>
<td>Rolling Resistance; Chair: Patrick Keating, Yokohama Tire</td>
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<tr>
<td>3:35 PM - 4:00 PM</td>
<td>On Road Fuel Consumption Testing to Determine the Sensitivity Coefficient Relating Changes In Fuel Consumption to Changes In Tire Rolling Resistance</td>
<td>Calvin Bradley, Michelin Americas</td>
</tr>
<tr>
<td>4:00 PM - 4:25 PM</td>
<td>How Low Can We Go - A Study On Minimum Rolling Resistance</td>
<td>Timothy Rhine, Michelin Americas</td>
</tr>
<tr>
<td>4:25 PM - 4:50 PM</td>
<td>Tire Fuel Efficiency - Rolling Resistance, Traction, Tread Wear - the Optimum Oil to Get You There</td>
<td>Steven Tranguch, H&amp;R Group US</td>
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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 Karimianis, 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 Approaches to Friction of Rubber on Ice**
Gunther Seipel, Technische Universität Darmstadt

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

#### 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

8:45 PM - 9:10 PM  **Awards Banquet - Dinner Speaker: Future Space Exploration Technology Challenges**
Donald Palac, NASA Glenn

### Printed August 23, 2011