CONFERENCE SCHEDULE

Day 1 - Tuesday, Sept 15

7:30 **Registration**
8:15 **Opening:** *Ed Terrill*, Program Chair
8:20 **Welcome:** *Bob Wheeler*, President
8:30 ***Keynote Address:*** *Robert Keegan,* CEO, Goodyear
9:10 **Break**
9:25 **Technical Program Begins:** *Ed Terrill, Barry Yavari*
9:25 **Technical Session #1: 2 presentations**
10:20 **Technical Session #2: 2 presentations**
11:15 **Break**
11:25 **State of Society Presentation:** Business Mtg.
11:45 ***Distinguished Achievement Award Presentation Luncheon***
1:15 **Technical Session #3a: 4 presentations**
3:00 **Break**
3:15 **Technical Session #3b: 5 presentations**
5:25 **End of Day 1 Technical Presentations**
5:25 **Social Hour:** Akron City Centre
6:25 ***Dinner Banquet:*** Akron City Centre**,**
- **Best Paper Awards:** *Gary Tubb*
- **Speaker:** *Dr. Terry Woychowski*, GM

Day 2 - Wednesday, Sept 16

8:00 **Welcome:** *Ed Terrill*
8:05 **Technical Session #4: 3 presentations**
9:25 **Break**
9:40 **Technical Session #5: 4 presentations**
11:25 **Break**
11:35 ***Plenary Lecture:*** *Dr. Marvin Janssen,*
12:15 ***Lunch Break***
1:30 **Technical Session #6: 2 presentations**
2:25 **Technical Session #7: 3 presentations**
3:45 **Break**
4:00 **Technical Session #8: 3 presentations**
5:20 **Closing Remarks**

HOTEL ACCOMODATIONS

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

Akron City Centre Hotel
20 W. Mill St.
Akron, OH 44308
Telephone: (330) 384-1500
Web: akroncitycentrehotel.com
Special Conference Rate: $99 single
(Rate guaranteed before Sept. 1, 2009.)

PARKING

Discount indoor parking for the conference has been reserved in the parking garage adjacent to the Hotel.

REGISTRATION FEES

Fee includes dinner banquet & award luncheon

Current Member[+] ..... no cost
New Member or Member Renewal* $250.00
Current Retiree Member[+] ..... no cost
New Retiree Member or Renewal* $100.00
Full Time Students** $50.00

[+] To qualify, member must have dues paid prior to Sept. 1, 2009; registration form submittal still required
* Includes annual membership in The Tire Society & subscription to *Tire Science and Technology Journal*
** Covers only conference activities (students must provide proof of full-time status).

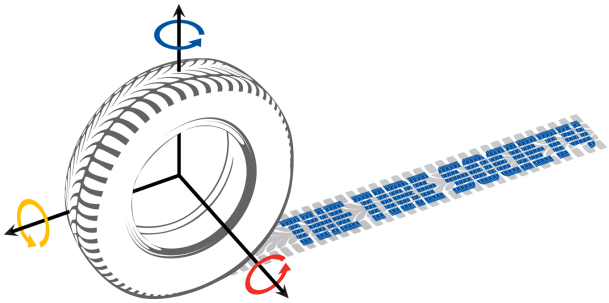
Registration form provided separately or available on the website. Mail registration form and payment (check payable in US currency to The Tire Society, Inc.) to:

THE TIRE SOCIETY
P.O. Box 1502
Akron OH 44309-1502, USA
Phone: (330) 929-5238
Fax: (330) 929-3576
Email: office@tiresociety.org

To ensure the timely preparation of the conference materials, advanced registration before September 1, 2009 is highly recommended.

Printed August 7, 2009

Conference Registration & Advance Program



28th Annual Conference on Tire Science and Technology

September 15 & 16, 2009
Akron City Centre Hotel
Akron, Ohio, USA

www.tiresociety.org

Technical Session, Presentation Topics & Presenters

Tuesday September 15, 2009

Keynote Address: Robert Keegan, Goodyear

Session #1: Wear/Friction/Rolling Resistance

1.1 "Fracture Mechanisms Underlying Road Wear" *Joe Padovan*, Consultant

1.2 "Validation of Steady State Laboratory Lateral Force Slip Characteristics of Small Tires" *Rene van der Steen*, Eindhoven University of Technology

Session #2: Vehicle Dynamics

2.1 "An Easy-to-use Tire Model for Combined-slip Forces" *Nenggen Ding*, Beihang University

2.2 "A Study on the Influence of Tire Properties on SUV Rollover using the Dynamic Simulation of FishHook Maneuvers" *Taeyun Koo*, NEXEN Tire Corp.

State of Society Presentation

Distinguished Achievement Award Presentation Luncheon: Honoring recipient Dr. Samuel Clarke (1924-2006)

Session #3a: New Light On Tire Technology

3.1 "Design, Construction, and Testing of a Portable Tire Test Rig" *Brad Hopkins*, Virginia Polytechnic Institute and State University

3.2 "Characterization of Tire Behavior by a Finite Element Method" *Vijaykumar Krithivasan*, Auburn University

3.3 "An Alternative Technique to Evlauate Crack Propagation Path in Hyperelastic Materials" *Renan Ozelo*, University of Campinas

3.4 "Soil Contact Pressure Resulting from Loaded Agricultural Tyres" *Paula Misiewicz*, Cranfield University

Session #3b: New Light On Tire Technology

3.5 "Use of Orthogonal Arrays for Efficient Evaluation of Geometric Designs for Reducing Vibration of a Non-Pneumatic Wheel during High-Speed Rolling" *William Rutherford*, Clemson University

3.6 "Parameter Estimation and Evaluation of LuGre Tire Friction Model Using Data Collected at Multiple Pavement Surfaces" *Madhura Rajapakshe*, University of South Florida

3.7 "Creep Behavior of Tires" *Jon-Michael Adkins*, University of South Carolina

3.8 "GIXRD and SIMS Analysis of the Rubber-Steel Tire Cord Interface" *Prasan Harakuni*, University of Cincinnati

3.9 "Effect of Aging on the Morphology of the Rubber-Brass Interface Layer" *Ahshay Ashirgade*, University of Cincinnati

Award Banquet:

- **Best Papers Award Presentation**
- **Dinner Speaker - Dr. Terry Woychowski, GM**

Wednesday September 16, 2009

Session #4: Noise, Vibration And Harshness

4.1 "Calculation of Dynamic Tire Forces from Aircraft Instrumentation Data" *Gary McKay*, Cessna Aircraft Co.

4.2 "Uniformity: A Crucial Attribute of Tire/Wheel Assemblies" *Marion Pottinger*, M'gineering, LLC

4.3 "Tires in Subjective Handling Test and Effect of Construction" *Khatereh Azarandaz*, Barez Industries Group

Session #5: Modeling

5.1 "Optimization of Reinforcement Turn-up Effect on Tire Durability and Performance for Racing Tire Design Finite Element Analysis" *Oluremi Olatunbosum*, University of Birmingham, UK

5.2 "Tire Modeling with Finite Element Analysis" *Mahmoud Assaad*, Goodyear Tire & Rubber

5.3 "Carbon Fiber Polyurethane Self-supporting Airless Tire" *Abraham Pannikottu*, American Engineering Group

5.4 "Modeling Material Storage Modulus for Tire Natural Frequency Prediction" *Bob Wheeler*, Hankook Tire

Plenary Lecture: Dr. Marvin Janssen

Session #6: Structural Performance

6.1 "Inflation Pressures at Less Than Maximum Tire Loads" *John Daws*, Daws Engineering, LLC

6.2 "Mathematical Model of the Effective Properties of a Fiber Reinforced Composite with a Linearly Graded Transition Zone" *Carey Childers*, Clarion University

Session #7: Durability/Tire Testing/Building

7.1 "ASTM Committee F09.30 Task Group Update on Commercial Truck/Bus Tire Test Practice Development" *Jim Popio*, Smithers Scientific

7.2 "Erroneous or Arrhenius – Potential Impact of Oven Temperature Variations on Laboratory Aging of Tires" *Greg Altman*, Michelin Scientific

7.3 "Correlated Dual Sheet-of-light Measurement for Material Preparation" *Oliver Scholtz*, Fraunhofer Institute for Integrated Circuits

Session #8: Materials/Materials Development

8.1 "Investigation of the Viscoelasticity for Crosslinked Rubber by Molecular Dynamics Simulation" *Yuuki Masumoto*, Toyo Tire & Rubber

8.2 "Network Evolution during Intensive Service in Large OTR Tire Compounds – Evidence for 'Double Network' Formation" *Fred Ignatz-Hoover*, Flexsys

8.3 "UTQG Tire Traction Rating Comparisons with 0°C Tan Delta And Coefficient of Friction Compound Measurements" *Ed Terrill*, Akron Rubber Development Laboratory

Please note that this is an advance program and is subject to change; please refer to the web for updates.