

Registration Fees

Fee includes luncheon and dinner banquet.

Current* or New/Renewing** Members:

Regular.....	\$300.00
Retiree/Unemployed.....	\$100.00
Full-Time Student.....	\$50.00
Non-Member.....	\$350.00

* 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.

Membership Dues*

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.

The Tire Society

2851 S. Parker Road, Ste. 560
Aurora, CO 80014
Phone: 866-963-1627
Fax: 303-755-7363
Email: office@tiresociety.org
www.tiresociety.org

QUICK REFERENCE

Day 1 - Tuesday, September 18, 2012

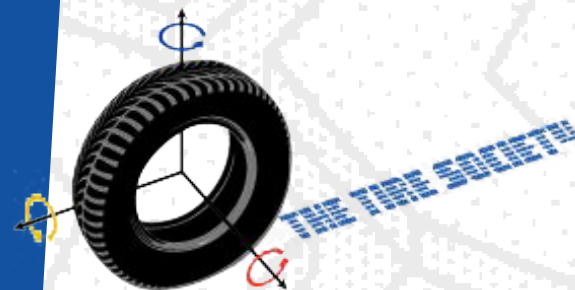
- 7:30 AM **Registration** - East Lobby
Presentation Theater
- 8:55 AM **Welcome:** Dale Moseley, President
- 9:00 AM **Keynote Address:** Enki Tan,
Executive Chairman, GiTi Tire Company Ltd.
Grand Ballroom
- 9:40 AM **Opening:** Lin Kung, Conference Chair
- 9:40 AM **Session 1 - Rolling Resistance:** Two Presenters
- 10:35 AM **Break/Refreshments**
- 10:45 AM **Session 2 - New Light on Tire Technology 1 (Student):** Four Presenters
- 12:30 PM **Lunch:** Provided, Grand Ballroom
South Section
Distinguished Service Award Presentation
- 1:30 PM **Session 3 - New Light on Tire Technology 2 (Student):** Three Presenters
- 2:50 PM **Break/Refreshments**
- 3:00 PM **Session 4 - Modeling & Simulation 1:**
Three Presenters
- 4:20 PM **Break/Refreshments**
- 4:30 PM **Session 5 - Modeling & Simulation 2:**
Two Presenters
- 5:25 PM **Day 1 Technical Sessions Closing**
Grand Ballroom - South Section
- 5:30 PM **Reception and Student Poster Judging**
- 6:30 PM **Dinner Awards Banquet**
- 7:20 PM **Best Paper & Poster Awards**
- 7:40 PM **Dinner Speaker:** John Goossen, Westinghouse
Electric Company
- 8:30 PM **Closing of Day One**

Day 2 - Wednesday, September 19, 2012

- 8:00 AM **Registration** - East Lobby
Grand Ballroom
- 8:00 AM **Opening:** Lin Kung, Conference Chair
- 8:05 AM **State of the Society:** Dale Moseley, President
- 8:25 AM **Session 6 - Footprint Mechanics:**
Three Presenters
- 9:45 AM **Break/Refreshments**
- 10:00 AM **Session 7 - Material:** Two Presenters
- 10:55 AM **Break**
- 11:10 AM **Plenary Lecture:** Michael Kaliske,
Technische Universität Dresden
- 12:00 PM **Lunch**
- 1:00 PM **Session 8 - Modeling & Simulation 3:**
Four Presenters
- 2:45 PM **Break/Refreshments**
- 3:00 PM **Session 9 - Testing:** Four Presenters
- 4:45 PM **Closing Remarks**

Advance Conference Schedule
Quick Reference

Advance Program Schedule & Registration Information



31ST ANNUAL MEETING AND CONFERENCE ON TIRE SCIENCE AND TECHNOLOGY

September 18 & 19, 2012

**Cleveland International
Exposition (I-X) Center**
Cleveland, Ohio, USA

www.tiresociety.org

Advance Presentation Schedule

(Times, Presentation Titles & Presenters)

Conference Program Committee

Chair: Lin Kung, Nexen Tire Company

Co - Chair: Mohammed Sobhanie, Goodyear

Tuesday, September 18, 2012

7:30 AM - 5:00 PM [Registration](#)

8:55 AM [Welcome](#)

Dale Moseley, President

9:00 AM [Keynote Address](#)

[The China Effect: The Next Chapter](#)

Enki Tan, Executive Chairman, GiTi Tire Company Limited

9:30 AM [Walk Back to Grand Ballroom](#)

9:40 AM [Conference Opening Remarks](#)

Lin Kung, Conference Chair

[9:40 AM - 10:35 AM Session 1: Rolling Resistance](#)

Chair: Gary Zolton

9:40 AM [Introduction: Chair](#)

9:45 AM [A Comparative Analysis of On-Road and Laboratory-Based Rolling Resistance Measurements](#)

Rahul Ahlawat, A&D Technology

10:10 AM [Robust Alignment of Tire Rolling Resistance Measurement](#)

James Popio, Smithers Rapra North America

10:35 AM - 10:45 AM [Break](#)

[10:45 AM - 12:30 PM Session 2: New Light On Tire Technology 1 \(Student Competition\)](#)

Chair: Michelle Hoo Fatt

10:45 AM [Introduction: Chair](#)

10:50 AM [Experimental Study of Tire-Wheel-Suspension Dynamics In Rolling Over Cleat and Abrupt Braking Conditions](#)

Yaoqun Zhou, Karlsruhe Institute of Technology

11:15 AM [Effect of Slip Ratio On the Wear Properties of the Tire Tread Rubber](#)

Yohei Arata, Graduate School of Natural Science and Technology, Kanazawa University

11:40 AM [Effect of Silica Filler On Wear and Crack Propagation of Rubber of Styrene Butadiene Rubber During Pattern Abrasion](#)

Hiroshi Kawachi, Graduate School of Natural Science and Technology, Kanazawa University

12:05 PM [Modeling of Strain Energy Harvesting in Pneumatic Tyres Using Piezoelectric Transducer](#)

Ali Kubba, University of Birmingham

12:30 PM - 1:30 PM [Luncheon](#) - Provided by The Tire Society & Distinguished Service Award Presentation

[The Tire Society Distinguished Service Award Recipient](#)

Marion Pottinger

[1:30 PM - 2:50 PM Session 3: New Light On Tire Technology 2 \(Student Competition\)](#)

Chair: Kory Smith

1:30 PM [Introduction: Chair](#)

1:35 PM [Investigations of Road Wear Caused by Studded Tires](#)

Johannes Gültlinger, Karlsruhe Institute of Technology

2:00 PM [Application of a Smart Tire System in Improving the Performance of Advanced Vehicle Control Systems](#)

Mustafa Ali Arat, Virginia Polytechnic Institute and State University

2:25 PM [Effect of Contact Area and Contact Pressure On Friction and Wear of Rubber](#)

Keisuke Matsubara, Graduate School of Natural Science and Technology, Kanazawa University

2:50 PM - 3:00 PM [Break](#)

[3:00 PM - 4:20 PM Session 4: Modeling & Simulation 1](#)

Chair: Minwu Yao

3:00 PM [Introduction: Chair](#)

3:05 PM [A Modular Race Tire Model Concerning Thermal and Transient Behavior Using a Simple Contact Patch Description](#)

Robert Lukesch, AUDI AG

3:30 PM [A Development of Estimation Method for Endurance Life At Bead Area by Using Extended Finite Element Method](#)

Han Seok Park, Nexen Tire Company

3:55 PM [Effects of Rotation On the Tire Dynamic Behavior: Experimental and Numerical Analyses](#)

Peter Kindt, Goodyear S.A.

4:20 PM - 4:30 PM [Break](#)

[4:30 PM - 5:25 PM Session 5: Modeling & Simulation 2](#)

Chair: Ron Kennedy

4:30 PM [Introduction: Chair](#)

4:35 PM [Global-Local Finite Element Analysis of Belt Edge Interface with a Detailed Cord-Rubber Modeling](#)

R. Mukhopadhyay, Hari Shankar Singhania Elastomer and Tyre Research Institute

5:00 PM [Predicting Vehicle Noise and Vibration Responses for Ride Comfort](#)

Greg Shteinhauz, The Goodyear Tire & Rubber Company

5:25 PM [End of Day One Technical Session Remarks](#)

5:30 PM - 8:30 PM [Reception & Dinner Awards Banquet](#)

5:30 PM [Reception and Student Poster Judging](#)

6:30 PM [Dinner Awards Banquet](#)

7:20 PM [Awards Presentation: 2011 Superior Paper & 2012 Student Poster](#)

7:40 PM - 8:30 PM [Dinner Speaker Nuclear Energy, Today and Future Opportunities, Technology Options, Issues and Potential Solutions](#)

John Goossen, Vice President, Westinghouse Electric Company

Wednesday, September 19, 2012

8:00 AM - 12:00 PM [Registration](#)

8:00 AM [Conference Opening Remarks](#)

Lin Kung, Conference Chair

8:05 AM [State of the Society](#)

Dale Moseley, President

[8:25 AM - 9:45 AM Session 6: Footprint Mechanics](#)

Chair: James Cuttino

8:25 AM [Introduction: Chair](#)

8:30 AM [On-Road Measurement of Three-Dimensional Tire Footprint Forces](#)

Rahul Ahlawat, A&D Technology

8:55 AM [Comparing Spray From Tires Rolling On a Wet Surface](#)

Dennis Plocher, University of Southern California

9:20 AM - 9:45 AM [Objective Analysis of the Stability of an Extra-Legal Weight Tractor Trailer Combination during a Rapid Air Loss \(RAL\) Event](#)

Ryan Pawlowski, Michelin Americas Research Company

9:45 AM - 10:00 AM [Break](#)

[10:00 AM - 10:55 AM Session 7: Material](#)

Chair: James McIntyre

10:00 AM [Introduction: Chair](#)

10:05 AM [Influence of Tire Tread Compound On Snow and Braking Performance](#)

Kiho Yum, Hyundai Motor Company

10:30 AM [Use of Extreme Values In Reliability Assessment of Tire Materials](#)

Aminreza Karamoozian, Amirkabir University of Technology

10:55 AM - 11:10 AM [Break](#)

[11:10 AM Plenary Lecture](#)

Michael Kaliske, Technische Universität Dresden
[Computational Engineering in Rubber Modeling and Tire Design](#)

12:00 PM - 1:00 PM [Lunch - on your own](#)

[1:00 PM - 2:45 PM Session 8: Modeling & Simulation 3](#)

Chair: Keith Sansalone

1:00 PM [Introduction: Chair](#)

1:05 PM [Prediction of Tire Pattern Noise by Using Convolution Method](#)

SungWook Hwang, Nexen Tire R&D Center

1:30 PM [Prediction of Aircraft Tyres Behaviour Under Extreme Loading Conditions Using Ideal Gas Inflator](#)

Oluremi Olatunbosun, University of Birmingham

1:55 PM [Tire Simulation with Ftire - More Than Rubber and Chord](#)

Gerald Hofmann, Cosin Scientific Software

2:20 PM [Tire Modeling at Goodyear](#)

Tom Ebbott, The Goodyear Tire & Rubber Company

2:45 PM - 3:00 PM [Break](#)

[3:00 PM - 4:45 PM Session 9: Testing](#)

Chair: Guy Edington

3:00 PM [Introduction: Chair](#)

3:05 PM [Experimental Friction and Temperature Investigation On Aircraft Tyres](#)

Tim Linke, Leibniz Universität Hannover

3:30 PM [The Flat-Trac® Light Truck Racing Electric-Drive Machine, the State-of-the-Art in Flat Belt Tire Testing and Its Application to the Virtual Proving Ground](#)

Kevin Kefauver, Virginia Polytechnic and State University

3:55 PM [Overview of Modern Testing Methods and Equipment for Tire and Rubber Reinforcement Materials](#)

Philippe van Bogaert, Bogimac

4:20 PM [Improving Capabilities In Tire Testing for the Military and Commercial Truck Industries](#)

James Cuttino, Camber Ridge, LLC

4:45 PM - 4:50 PM [Conference Closing Remarks](#)