

Registration Fees

Fee includes luncheon & dinner banquet

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, 2010; 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).

To ensure the timely preparation of the conference materials, advanced registration before September 1, 2010 is highly recommended.

Register online at www.tiresociety.org.

Hotel Accommodations

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

DoubleTree Akron/Fairlawn

3150 W. Market Street.

Akron, Ohio, USA 44333

Telephone: (330) 869-9000

Web: www.doubletreeakron.com

Special Conference Rate: \$99 single

(Rate guaranteed before Sept. 11, 2010.)

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 - Sunday, Sept 19

4:00p ...	Editorial Board Meeting: Oak Room
6:00p ...	Editorial Bd. Dinner: Beau's Grille (Hilton)
6:00p ...	Program & Session Chair Dinner: Beau's

Day 1 - Monday, Sept 20

7:00a **Registration:** Prefunction Lobby (all day)

7:00a **Breakfast: Day 1 Presenters &**

Session Chairs: Cafe Bricco

Day 1 Presentations: Aspen Ballroom

8:15a **Opening:** Barry Yavari, Program Chair

8:20a **Welcome:** Bob Wheeler, President

8:30a **Keynote Address:** Seung Hwa Suh,
CEO & Vice Chairman, Hankook Tire

9:05a **Friction & Rolling Resistance:** 2 Presenters

10:00a..... **Break / Refreshments:** Prefunction Lobby

10:15a... **New Light on Tire Tech. 1:** 4 Presenters

12:00p **Lunch:** Provided by Tire Society,
Conrad Ballroom (Hilton)

1:15p **New Light on Tire Tech. 2:** 5 Presenters

3:00p **Break / Refreshments:** Prefunction Lobby

3:40p **Materials:** 3 Presenters

5:00p **Day 1 Technical Sessions Closing**

Awards Banquet: Conrad Ballroom (Hilton)

5:30p **Reception**

6:30p **Dinner Banquet**

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

7:20p **Dinner Speaker:** David Cole,
Center for Automotive Research (CAR)

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

Day 2 - Tuesday, Sept 21

7:00a **Breakfast: Day 1 Presenters &**

Session Chairs: Cafe Bricco

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

Day 2 Presentations: Aspen Ballroom

8:00a **Opening:** Barry Yavari, Program Chair

8:10a **State of Society:** Bob Wheeler, President

8:35a **NVH (part 1):** 3 Presenters

9:55a **Break / Refreshments:** Prefunction Lobby

10:10a... **NVH (part 2):** 2 Presenters

11:00a... **Plenary Lecture:** Yukio Nakajima,
Kogakuin University

11:45a **Advisory Board Meeting:** Birch Room

11:45a **Lunch Break**

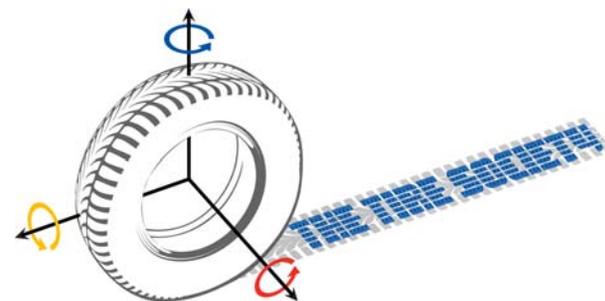
1:15p **Simulation:** 4 Presenters

3:00p **Break / Refreshments:** Prefunction Lobby

4:00p **Aging & Testing:** 4 Presenters

5:20p **Closing Remarks**

Advance Program Schedule & Registration Information



29th Annual Meeting and Conference on Tire Science and Technology

**September 20 & 21, 2010
DoubleTree Akron/Fairlawn
Akron, Ohio, USA**

www.tiresociety.org

Advance Presentation Schedule **(Times, Presentation Titles & Presenters)**

Conference Program Committee

Chair: *Barry Yavari*, Goodyear Tire
Co-Chair: *Saied Taheri*, Virginia Tech

Monday September 20, 2010

8:30 AM-9:00 AM Keynote Address: Tire Industry Opportunities and Challenges

Seung Hwa Suh, CEO & Vice Chairman,
Hankook Tire

9:05 AM-10:00 AM Friction and Rolling Resistance

Chair: *Ben Wen*, Goodyear Tire

9:10 AM - 9:35 AM Investigation of Friction Mechanisms of Siped Tire Tread Blocks on Snowy and Icy Surfaces,

Stefan Ripka, Leibniz Universität Hannover

9:35 AM - 10:00 AM Rolling Resistance of a Non-Pneumatic Tire Having a Porous Elastomer Composite Shear Band ,

Jaehyung Ju, Clemson University

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 Experimental and Numerical Study of Friction and Handling Characteristics of Rolling Tires

René van der Steen, Eindhoven University of Technology

10:45 AM - 11:10 AM An Investigation Into Wheel Sinkage on Soft Sand

Noel Hathorn, MEng, Cranfield University

11:10 AM - 11:35 AM Derivation of LuGre Tire Parameters Using Laboratory Tests

Madhura Rajapakshe, University of South Florida

11:35 AM - 12:00 PM An off-Road Tire Model for Vehicle Handling Studies

Brad Hopkins, Virginia Tech

1:15 PM-3:25 PM New Light on Tire Technology 2 (Student Competition);

Chair: *Kory Smith*, Bridgestone Americas

1:20 PM - 1:45 PM Tapered Aluminum Structure Shear Band for a Non-Pneumatic Tire

Luke Berglind, Clemson University

1:45 PM - 2:10 PM Tire Surface Vibration and Sound Radiation Resulting From the Tire Cavity Mode

Andrew Jessop, Purdue University

2:10 PM - 2:35 PM Piezoelectric Vibration-Based Energy Harvesters for Next Generation Intelligent Tires

Kanwar Bharat Singh, Virginia Tech

2:35 PM - 3:00 PM Sensor Module Development for Study of Tire Deformation

Vijaykumar Krithivasan, Auburn University

3:00 PM - 3:25 PM Numerical Study of Vibration of An Alternating Spoke Pair Design Concept

Shashank Bezgam, Clemson University

3:40 PM-5:00 PM Materials;

Chair: *Vijayanand Muralidharan*, Goodyear Tire

3:45 PM - 4:10 PM An Implementation of Component Material Damping for Tire Vibration Simulations

Bob Wheeler, Hankook Tire

4:10 PM - 4:35 PM Application of A Simplified Viscoelastic Model to 3-D Simulation of Rubber Extrusion Flow

Minwu Yao, Goodyear Tire

4:35 PM - 5:00 PM Mechanics of Bend-Over-Sheave (Shoeshine) Fatigue Testing of Cord-Rubber Laminates

Phillippe van Bogaert, ir, Bogimac

7:00 PM-7:20 PM Awards Banquet - Awards Presentation

Awards Chair: *Gary Tubb*, Goodyear Tire (Retired)

7:20 PM-8:00 PM Awards Banquet - Dinner Speaker: Today's Turbulence: A Foundation for Future Automotive Success

David Cole, Center for Automotive Research (CAR)

Tuesday September 21, 2010

8:10 AM-8:35 AM State of The Society President: *Bob Wheeler*, Hankook Tire

8:35 AM-11:00 AM Noise, Vibration, and Harshness (NVH)

Chair: *Ric Mousseau*, Michelin Americas

8:40 AM - 9:05 AM Application of Coupled Structural Acoustic Analysis and Sensitivity Calculations to a Tire Noise Problem

Hamid Aboutorabi, Kumho Tire

9:05 AM - 9:30 AM Influence of Tire Design Parameters on Vehicle Gravel/Sand Noise

Kiho Yum, Hyundai Motor Company

9:30 AM - 9:55 AM Directionality of Tangential Force Variation In High Speed Uniformity

Desheng Li, Goodyear Tire

10:10 AM - 10:35 AM A Training Method for Improving Tire Noise Subjective Evaluation Ability

Dongsoo Kang, KAIST

10:35 AM - 11:00 AM A New Approach to Tire Parameter Identification

Dietmar Weber, Fraunhofer LBF

11:00 AM-11:45 AM Plenary Lecture: Application of Computational Mechanics to Tire Design – Yesterday, Today and Tomorrow

Yukio Nakajima, Kogakuin University

1:15 PM-3:00 PM Simulation

Chair: *Hamid Aboutorabi*, Kumho Tire

1:20 PM - 1:45 PM Parallel Computing for Tire Simulations

Harish Surendranath, SIMULIA Corp.

1:45 PM - 2:10 PM Applications of Abaqus' Coupled Eulerian-Lagrangian Technology to Modeling Tire Interactions

Vivek Katiyar, SIMULIA Corp

2:10 PM - 2:35 PM Study on the Indoor Wear Prediction by Using Explicit FE Simulation

SangHyeub Kim, Hankook Tire

2:35 PM - 3:00 PM Load Capacity Improvement of the Current Lunar Roving Vehicle(LRV) Nonpneumatic Tire by Finite Element Analysis

Thulasiram Gobinath, Goodyear Tire

3:15 PM-5:00 PM Aging & Testing

Chair: *Sam Knisley*, Hankook Tire

3:20 PM - 3:45 PM Nitrogen Inflation for Passenger Car and Light Truck Tires

John Daws, Daws Engineering, LLC

3:45 PM - 4:10 PM Gas Transport In the Tire Aging Test and Intra-Carcass Pressure Issues

Vladimir Kerchman, Kumho Tire

4:10 PM - 4:35 PM The Role of Tire Overturning Moment In Steering

Douglas Blue, Ford Motor Company

4:35 PM - 5:00 PM Developing the Next Generation In Tire Testing

James Cuttino, Camber Ridge, LLC

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