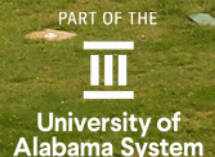


SLIPS, TRIPS, AND FALLS 2026 INTERNATIONAL CONFERENCE

Hosted by: The University of Alabama in
Huntsville

JUNE 16 – 18, 2026





The 2026 Slips, Trips, and Falls International Conference will be held June 16-18, 2026, in Huntsville, Alabama, USA, and is hosted by The University of Alabama in Huntsville (UAH). This conference aims to bring together experts worldwide to share research excellence, industrial advances, and policy innovations in preventing slip, trip, and fall-related injuries.

2026 Slips, Trips, & Falls International Conference Steering Committee

Dr. Sara Harper: Conference Chair, Assistant Professor at The University of Alabama in Huntsville, STF Technical Committee Member

Dr. Kurt Beschorner: Steering Committee Chair, Professor of Bioengineering at the University of Pittsburgh, STF Technical Committee Member

Dr. Sophia Li: Member, The KITE Research Institute - University Health Network, STF Technical Committee Co-Chair, and 2023 STF Conference Co-Chair

Dr. Takeshi Yamaguchi: Member, Professor of Engineering at Tohoku University, STF Technical Committee Co-Chair, and 2022 STF Conference Chair

Ms. Tia Larsen-Calcano: Chapter President, Tennessee Valley Human Factors and Ergonomics Society

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STAIRBUILDERS &
MANUFACTURERS
ASSOCIATION

Stairbuilders and Manufacturers Association (SMA) is comprised of Stair Industry professionals who specialize in residential and commercial construction. The SMA offers education, a robust knowledge base, publications, certification, and industry networking opportunities that benefit our members as well as the architect, builder, code official, interior designer, and homeowner alike.



BERTEC

Bertec products have represented a legacy of excellence in biomechanics for over thirty years. We provide solutions founded in accuracy and precision. Our engineering is trusted worldwide to enable a deeper understanding of human movement.

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Editor World provides top-rated editing and proofreading services for authors, academics, business professionals, and ESL writers across more than 65 countries.

NEOSPIRE Limited

Neospire® develops the SoleXT® tribometer and associated technologies to advance the measurement of footwear slip resistance, helping industry move from compliance testing towards a better understanding of real-world slip risk.

Event Details

Conference Website and Travel Resources

The conference website serves as a central hub for conference information.

Physical Facilities

The conference will take place across three venues throughout the week.

Conference Headquarters

Student Services Building (SSB Room 112)
301 Sparkman Drive NW
Huntsville, AL 35899

Welcome Reception

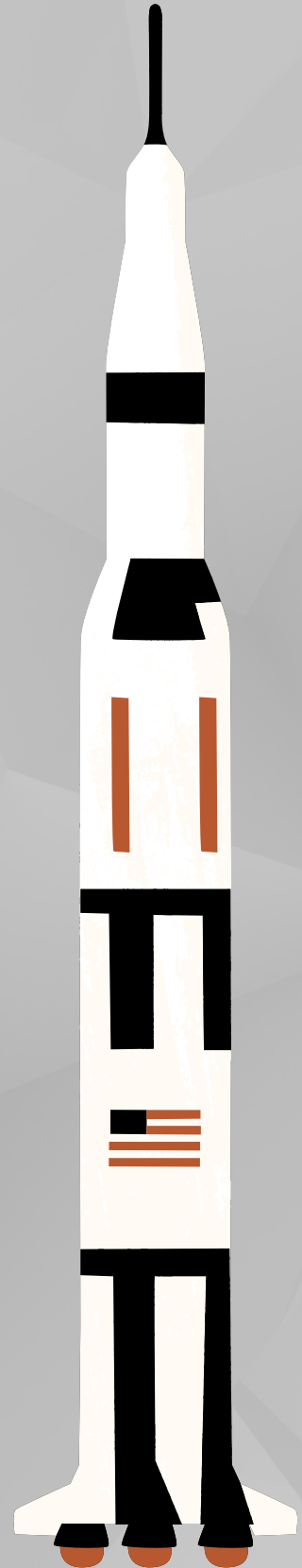
The Speakeasy at Campus 805
2620 Clinton Ave W
Huntsville, AL 35805

Signature Dinner

Davidson Center at the US Space & Rocket Center
1 Tranquility Base
Huntsville, AL 35805

Family Care Resources

Huntsville, AL's Rocket City Moms Team serves as a liaison for conference attendees who require family and childcare resources and services. In addition to childcare resources, there are several summer camp offerings, including Space Camp by the U.S. Space & Rocket Center.



THANK YOU

Dr. Kurt Beschorner

Dr. Takeshi Yamaguchi

Dr. Howard Chen

Dr. Camille Peres

Dr. Sauvik Das Gupta

Dr. Jerry Purswell

Mr. Jim Flynn

Dr. Yue Leo

Dr. Helene Gagne

Dr. In-Ju Kim

Mr. Brian Grieser

Dr. Sophia Li



Dr. Sara Harper

Mr. Will Martin

Dr. Nathan Pickle

Dr. Lenora Smith

All abstracts submitted for the 2026 Slips, Trips, & Falls International Conference were evaluated by multiple reviewers to ensure that they met research quality standards. Thank you volunteers, who reviewed abstracts.

Featured Events at STF 2026

Keynote Address

Understanding and Preventing Falls and Fall-Related Injuries in Older Adults Using a Unique Video Dataset

Speaker Dr. Stephen Robinovitch

Wednesday, June 17, 10:30-11:30 AM

Dr. Robinovitch directs the Injury Prevention and Mobility Laboratory. Focusing on understanding the causes and prevention of injuries.

Falls are the leading cause of injury and a top ten cause of death among older adults. Prevention remains challenging due to complex interactions among physiological, environmental, and behavioral risk factors. Over a 13-year cohort study conducted in partnership with two long-term care homes in the Vancouver region, our laboratory has collected and analyzed video recordings of more than 3,000 real-world fall events. These data have been linked to injury outcomes as well as measures of physical and cognitive status. In this talk, Dr. Robinovitch will present key findings on the mechanisms of imbalance and activities leading to falls, the role of protective responses in balance recovery and injury mitigation, and the characteristics of falls associated with hip fractures or head injuries. Together, these insights provide a foundation for improving fall and injury prevention strategies in older adults.

IEA Slips, Trips & Falls Open Board Meeting

Thursday, June 18, 8:00 - 9:00 AM

Join us for our open business meeting for the Slips, Trips, & Falls Technical Committee of the International Ergonomics Association. We will share news and updates, both in-person and virtually. This meeting will take place on a separate zoom link and is open to the public.

Program-at-a-Glance

June 16

10:00 AM - 4:00 PM	Information and Registration
2:00 PM - 4:00 PM	UAH Lab Tours (Optional)
5:00 PM - 8:00 PM	Welcome Reception

June 17

8:00 AM - 5:00 PM	Registration
8:00 AM - 9:00 AM	Breakfast
9:00 AM - 9:10 AM	Conference Welcome
9:10 AM - 10:10 AM	Session 1: Advances in Measuring, Predicting, and Communicating Slip Resistance
10:10 AM - 10:30 AM	Coffee and Tea Break
10:30 AM - 11:30 AM	Session 2: Keynote Address
11:30 AM - 12:45 PM	Session 3: Measurement and Evaluation of Slip Resistance
12:45 PM - 1:45 PM	Lunch
1:45 PM - 3:00 PM	Session 4: Footwear and Surface Interaction
3:00 PM - 3:15 PM	Coffee, Tea, and Snack Break
3:15 PM - 4:15 PM	Session 5: Industry Panel Discussion
4:15 PM - 5:15 PM	Session 6: Interactive Exhibitor and Poster Session
5:30 PM - 8:00 PM	Signature Dinner

June 18

7:30 AM - 5:00 PM	Information and Registration
8:00 AM - 9:00 AM	STF Technical Committee Board Meeting
8:00 AM - 9:00 AM	Breakfast
9:05 AM - 9:10 AM	Day 2 Greeting
9:10 AM - 10:30 AM	Session 7: Stairway Safety
10:30 AM - 10:50 AM	Coffee, Tea, and Snack Break
10:50 AM - 12:35 PM	Session 8: Biomechanics of Slips, Trips, and Falls
12:35 PM - 1:35 PM	Lunch
1:35 PM - 2:35 PM	Session 9: Interactive Discussion
2:35 PM - 3:35 PM	Session 10: Panel Presentation
3:35 PM - 3:50 PM	Coffee and Tea Break
3:50 PM - 4:35 PM	Session 11: Friction to Foresight: Advancing Slip Risk Standards and Prevention
4:35 PM - 4:45 PM	Closing Remarks

Tuesday, June 16

10:00 AM - 4:00 PM Information and Registration - UAH Conference Headquarters

Address: 301 Sparkman Dr NW, Huntsville, AL 35899

2:00 PM - 4:00 PM UAH Lab Tours - UAH campus

Contact Harperlab@uah.edu to register - **free registration required**

- Harper Lab, Kinesiology Department, Wilson Hall
- Exercise Physiology & Human Performance Kinesiology Labs, Wilson Hall
- Digital Twin Lab, Industrial & Systems Engineering and Engineering Management Department, Technology Hall
- Charger Robotics and Biomechanics Lab, Industrial & Systems Engineering and Engineering Management Department, Technology Hall

5:00 PM - 8:00 PM Welcome Reception - Campus 805

The jazzy, intimate atmosphere of a cleverly hidden speakeasy is at Campus 805 (2610 Clinton Ave., Huntsville, AL 35805). Food will be catered by Straight to Ale Brewery, with a cash bar featuring 10 taps and a full mixed-drink menu.

Wednesday, June 17

UAH Conference Headquarters, 301 Sparkman Dr NW, Huntsville, AL

8:00 AM - 5:00 PM Registration / Check-in

8:00 - 9:00 AM Breakfast

9:00 AM - 9:10 AM Conference Welcome

9:10 AM - 10:10 AM

Session 1 - Advances in Measuring, Predicting, and Communicating Slip Resistance

Session Chair: Christoph Wetzel

The Effect of Surface Texture Variations on DCOF Measurements of Ceramic Tiles using the BOT-3000E Tribometer

John Leffler*, Catalina Mantilla, Doug Powell

Predicting Shoe-floor Friction: Multiscale Topography Metrics Outperform Single-scale Metrics

Vimanyu Chadha*, Kurt E. Beschorner, Tevis D.B. Jacobs

Consistency of Footwear Slip-Resistance Performance Across Repeated MAA Testing

Ayalinch Jonathan, Yevgeniy Korolyov, Eman Muhammad, Yue (Sophia) Li*

Bridging the Gap Between Slip-Resistance Evidence and Public Perception in Winter Footwear

Sabrina Lo, Yue (Sophia) Li*

10:10 AM - 10:30 AM Coffee, Tea Break

10:30 AM - 11:30 AM

Session 2 - Keynote Address by Stephen Robinovitch

Understanding and Preventing Falls and Fall-Related Injuries in Older Adults Using a Unique Video Dataset

Wednesday, June 17

11:30 AM - 12:45 PM

Session 3 - Measurement and Evaluation of Slip Resistance

Session Chair: John Leffler

Comparability of Slip Resistance Measurements Using Different Tribometer Models

Jolanda Bucher*, Ulrich Windhövel, Elise de Aquino

The Pendulum Test: Further Work with Slider 55"

Steve Thorpe*, K. Palmer, B. Powers, L. Roberts

Rubber Surface Texturing to Generate Negative Fluid Pressure for Improved Slip Resistance in Liquids

Arata Ishizako*, Toshiaki Nishi, Takeshi Yamaguchi

Wanted or Needed: High Quality Contemporary Slip Resistance Data?

Richard Bowman

The Effect of Temperature on Walkway Tribometer Measurements

Dennis Chimich*, Benjamin Elkin, K. Merry, Gunter P. Siegmund

12:45 PM - 1:45 PM Lunch

1:45 PM - 3:00 PM

Session 4 - Footwear and Surface Interaction

Session Chair: Toshiaki Nishi

Identifying Representative Floor and Contaminant Conditions for Assessing Shoe Traction Using Principal Component Analysis

Kurt E. Beschorner*, Sadie Lombardo, Matthew Kaboly, Richard Smith, Carolyn Sommerich

Effectiveness of Environment-Specific Slip-Resistant Footwear: A Crossover Randomized Controlled Trial in the Danish Dairy Industry

Lasse Jakobsen, Kent Jacob Nielsen, Pascal Madeleine*

Wednesday, June 17

1:45 PM - 3:00 PM

Session 4 - Footwear and Surface Interaction (cont.)

Study on Relationship Between Frictional Properties and Geometric Surface Patterns Working Towards Grip Estimation Between Shoe Soles and Floors

Kei Shibata*, Takeshi Yamaguchi

Shoe-Sole Sensor System Combining Triaxial Force Sensors and Inertial Sensors: A Wearable Approach for Real-World Gait Assessment

Takeshi Yamaguchi

Deep Learning to Automate Photo-Based Assessment of Shoe Worn Condition

Gerard Aristizábal Pla, Carolyn M. Sommerich, Kurt E. Beschorner*

3:00 PM - 3:15 PM Coffee, Tea, & Snack Break

3:15 PM - 4:15 PM Session 5 - Industry Panel Discussion

Ms. Lori Choquette - ProgressiveHealth

Mr. Bill Ells - retired advisor, Vibram footwear

Dr. Benjamin Elkin - MEA Forensics Engineers & Scientists

Mr. Joel Batiz - OSHA Birmingham Area Office

Dr. Kurt E. Beschorner - University of Pittsburgh

4:15 PM - 5:15 PM

Session 6 - Interactive Exhibitors (ProgressiveHealth, Bertec, Stairbuilders & Manufacturers Association) and Poster Session

User Perspectives on Safety Harnesses in Construction. Ian C. Briggs*, Erika M. Pliner

Postural Control Among Young and Older Adults with Exposure to Real and Virtual Perturbations. John Garner*, Harish Chander, Hunter Derby, Jacob B. Daniels, David Saucier, Emily Wall, Kaitlyn McDonald, Reuben Burch, Shashank Shekhar, Jennifer C. Reneker

Wednesday, June 17

4:15 PM - 5:15 PM

Session 6 - Interactive Exhibitors (ProgressiveHealth, Bertec, Stairbuilders & Manufacturers Association) and Poster Session (cont.)

The Role of Brush Type and Sand Additive Layering on Frictional Properties of Surface-Coated Wood Surfaces. Lila Wayman*, Kristen Renner, Jonathan Lee-Confer

Acute Effects of Awkward Working Postures on Lower Extremity Gait Kinematics During Obstacle Negotiation. Hunter Derby*, Reuben Burch, Zachary Gillen, Adam Knight, Harish Chander

Understanding Ice-Polymer Interactions in Textured Composites Through Experiments and Modeling. Sabrina Islam*, Alexia Ann Joachim, Z. Shaghayegh Bagheri

Perspectives on Home Stairway Safety: Attitudes Toward Two-Sided Handrails and Step-Edge Visual Contrast. Parker Nelson*, Sara A. Harper

Validation of Gradient Adjustment for Slip Probability Estimation Using the Pendulum Friction Tester. Carl Strautins

Effect of Biological (Organic) Growth on the Slip Resistance of External Pedestrian Surfaces. Carl Strautins

5:30 PM - 8:00 PM **Signature Dinner** at the U.S. Space & Rocket Center

Thursday, June 18

UAH Conference Headquarters, 301 Sparkman Dr NW, Huntsville, AL

7:30 AM - 5:00 PM Information/Registration

8:00 - 9:00 AM STF Open Board Meeting
(all attendees are welcome; a different zoom link will be used to facilitate access)

8:00 - 9:00 AM Breakfast

9:05 - 9:10 AM Day 2 Greeting

9:10 AM - 10:30 AM

Session 7 - Stairway Safety

Session Chair: Sara Harper

Effects of Added Body Mass on Utilized Coefficient of Friction during Stair Descent

Cantilla Mantilla*, Alexis Trantum, John Leffler, Doug Powell

The Distribution of Shoe Overhang During Stair Descent - A Step Toward Predicting Slip Risk

Gunter P. Siemund*, Alan L. Mitchell, Benjamin S. Elkin

Extended Discussion - Advancing Stairway Safety Through Applied Ergonomics

Sara A. Harper, Sai Panuganti, Howard Chen

10:30 AM - 10:50 AM Coffee, Tea, & Snack Break

10:50 AM - 12:35 PM

Session 8 - Biomechanics of Slips, Trips, and Falls

Session Chair: Harish Chander

Gait Event Classification Using Motion Capture, Force Plate, and Electromyography Data Among Young and Older Adults During Slip-Trip Perturbations

David Sauicer*, Laith Bani Khaled*, Kaitlyn McDonald, Emily Wall, John E. Ball, James Weinstein, Harish Chander, John Garner, Hunter Derby, Jacob B. Daniels, Reuben F. Burch, Shashank Shekhar, Jennifer C. Reneker

Thursday, June 18

10:50 AM - 12:35 PM

Session 8 - Biomechanics of Slips, Trips, and Falls (Cont.)

Tripping or Not Tripping While Wearing Safety Shoes With and Without Ankle Support: A Biomechanical Question?

Pascal Madeleine*, Lasse Jakobsen, Mathias Munk-Hansen

Preventing Foot Slippage in Powerlifting: Analysis of Traction Coefficient During Bench Press Leg Drive

Toshiaki Nishi*, Yuya Tamura, Arata Ishizako, Naoto Hiroi, Takeshi Yamaguchi

Linking Human Heel-Strike Biomechanics to Footwear Slip Testing: Extending Evidence from the SSHeW Trial Using the Neospire SoleXT

Kevin Hallas*, Matt J. Carré, Sam Carré

The Effect of Different Protective Clothing on Firefighters' Postural Stability

Reza Kamali Miab*, Anthoney Shawn Deaton, Roger Barker, Emiel den Hartog

The Impact of Different Types of Terrain and Handling of the Load on the Walking and Movement Patterns of Forestry Workers, with a Focus on Potential Walking Accidents

Martin Röhrich*, Petr Rokoský

Helmet Protection Performance for Slip-Falls Based on Neck and Head Injury Risk

John Z. Wu*, Christopher S. Pan, Hemal Dave, Richard Whisler, Joyce Zwiener, Christopher M. Warren

12:35 PM - 1:35 PM Lunch

1:35 PM - 2:35 PM Session 9 - Interactive Discussion

Don't Wait to Fail "The Slip Test" to Replace Your Slip Resistant Shoes!

Kurt E. Beschorner*, Carolyn M. Sommerich*, Gerard Pla Aristizábal, Anas Kachlan

Thursday, June 18

2:35 - 3:35 PM **Session 10 - Panel Presentation**

Session Chair: Jonathan Lee-Confer

Testing and Evaluation of Moving Truck Loading Ramps: Developing Practical, Field-Ready Methods for Measuring Available Coefficient of Friction (ACOF) on Inclined Surfaces

Derrek-ian Verlaan, Michael Mikhailov

3:35 - 3:50 Coffee, Tea Break

3:50 - 4:35 PM

Session 11 - Friction to Foresight: Advancing Slip Risk Standards and Prevention

Session Chair: Steve Thorpe

A Bayesian Adaptive Framework for Slip Risk: Integrating Surface Friction, Human Behaviour, and Perception

Carl Strautins

Makita-Sproles: Transforming Slip Resistance Standards to Better Meet Real World Needs and Evolving Legal Requirements

Richard Bowman

Developments in Slip Resistance Standards: Implications for Premises Safety and Pedestrian Fall Risk Evaluation

Craig D. Rogers

4:35 - 4:45 PM **Closing Remarks**

Thank you for attending the 2026 Slips, Trips, & Falls International Conference at The University of Alabama in Huntsville. See you at the International Ergonomics Association (IEA) 2027 Congress in London, August 23-25, 2027!

