



# SLIPS, TRIPS, & FALLS

## Slips, Trips, and Falls International Conference 2017

June 15 - 16, 2017 | MaRS Centre, 101 College Street, Toronto

### Thursday, June 15, 2017

7:30am – 8:45am	<b>Registration and Breakfast</b>
8:45am – 9:00am	Opening Welcome, <b>Dr. Geoff Fernie</b> , Institute Director of Research, <b>Toronto Rehabilitation Institute-UHN</b>
9:00am – 10:00am	<b>Panel Session 1: Demographic Risk Factors of Falls</b> <ul style="list-style-type: none"><li>• <b>Daniel Martel, University of Waterloo</b> - A novel probabilistic modeling approach using a factor-of-risk framework to predict population level hip fracture risk in Canadian older adults</li><li>• <b>Steven Pretty, University of Waterloo</b> - Beyond bone strength: skeletal geometry influence pressure distribution over the hip during lateral falls</li><li>• <b>Nadia Afrin, Kuopio Musculoskeletal Research Unit, University of Eastern Finland</b> - Occurrence and risk of slip and nonslip falls related to multimorbidity - the 20 years follow-up of OSTPRE women from menopause to old age</li><li>• <b>Kurt Beschorner, University of Pittsburgh</b> - Functional gait assessment score predicts individual sensitivity to multifocal lens during stair ascent</li></ul>
10:00am – 10:15am	<b>Morning Coffee &amp; Networking Break</b>
10:15am – 11:15am	<b>Panel Session 2: Characterizing Falls in Public Environments</b> <ul style="list-style-type: none"><li>• <b>Mina Nouredanesh, University of Waterloo</b> - Machine learning-based detections of compensatory balance responses and environmental fall risks using wearable sensors</li><li>• <b>Boyi Hu, Liberty Mutual Research Institute for Safety and Department of Environmental Health, Harvard T.H. Chan School of Public Health</b> - Applying deep learning in characterizing walking surfaces</li><li>• <b>Jake Pauls, Jake Pauls Consulting Services</b> - Anatomy of a trip and fall resulting in injury</li><li>• <b>Carl Strautins, Safe Environments</b> - Findings from slip, trip and fall public liability audits of Australian shopping centres</li><li>• <b>David Watterson, Mountville Mills, Inc.</b> - Entranceway floor mats prevent accidents before they happen</li></ul>
11:15am - 12:15pm	<b>Panel Session 3: Current Issues in Tribometer Use and Validity</b> <ul style="list-style-type: none"><li>• <b>Gunter Siegmund, MEA Forensic Engineers &amp; Scientists, University of British Columbia</b> - Introduction: Current walkway tribometer standards and</li></ul>



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	<p>their use</p> <ul style="list-style-type: none"><li>• <b>Mark Blanchette, Semper Scientific, University of Southern California</b> - The relationship between tribometer measurements and human ambulation</li><li>• <b>Katelyn Simpson, Tile Council of North America</b> - Development of tribometer standards from German ramp studies</li><li>• <b>Bradley Rutledge, MEA Forensic Engineers &amp; Scientists</b> - Effect of contaminant film thickness on tribometer measurements</li><li>• <b>Benjamin S. Elkin, MEA Forensic Engineers &amp; Scientists</b> - Precision and repeatability in tribometer calibration and validation</li><li>• <b>Jim Flynn, J2 Engineering</b> - Tribometers in the field: Experience from a forensic expert</li></ul>
12:15pm – 1:15pm	<b>Lunch</b>
1:15pm – 2:15pm	<p><b>Panel Session 4: Preventing Falls in Winter</b></p> <ul style="list-style-type: none"><li>• <b>Chantal Gauvin, Institut de recherche Robert-Sauvé en santé et en sécurité du travail</b> - Slips, Trips and Falls Among Quebec Workers and Specific Risk Factors for Police Officers</li><li>• <b>Stephanie Gower, Toronto Public Health</b> - Wintertime Slips and Falls in Toronto: Implications for Healthy Public Policy</li><li>• <b>Bill Ells, Vibram USA</b> - The effects of environmental and temperature changes on soling materials, in relationship to slip resistance and traction</li><li>• <b>Peter Seibert, Kinesik Engineered Products</b> - Design tactile warning tiles and heated pavement for winter</li><li>• <b>Yue Li, Toronto Rehabilitation Institute</b> - RateMyTreads</li></ul>
2:15pm – 3:15pm	<p><b>Panel Session 5: Assessing Environmental Risk of Slips and Falls</b></p> <ul style="list-style-type: none"><li>• <b>Carl Strautins, Safe Environments</b> - Review of the Australian inter-laboratory proficiency testing scheme</li><li>• <b>Alison Novak, Toronto Rehabilitation Institute</b> – Evaluating sidewalks</li><li>• <b>Randy Atlas, Atlas Safety &amp; Security Design Inc.</b> - Slips, Trips and Falls: Bad Design or Careless Behaviour?</li></ul>
3:15pm –	<b>Afternoon Coffee &amp; Networking Break</b>



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3:30pm	
3:30pm - 4:30pm	<b>Panel Session 6: Preventing Falls in Bathrooms and Other Wet Environments</b> <ul style="list-style-type: none"><li>• <b>Alison Novak, Toronto Rehabilitation Institute</b> – Grab bars to prevent falls in bathrooms</li><li>• <b>Jake Pauls, Jake Pauls Consulting Services</b> - Ramp testing to measure slip resistance effectiveness of wet terry cloth towels in bathtubs used for showers</li><li>• <b>Chris Johnson, Altro</b> - Designing slip resistance solutions for wet environments in healthcare</li><li>• <b>Richard Bowman, Intertile Research Pty Ltd.</b> - What level of slip resistance is required in residential bathrooms, where and how does this accord with popular expectations?</li></ul>
4:30pm – 6:00pm	Tours & Interactive Demos, Challenging Environments Assessment Laboratory (2-3 walk from the conference venue)
6:45pm	<b>Dinner at CN tower 360 restaurant (additional ticket required)</b>

### Friday June 16, 2017

8:00am – 9:00am	<b>Breakfast</b>
9:00am – 10:00am	<b>Panel Session 7: Considerations of Flooring, Surfaces, and Footwear in Fall Prevention</b> <ul style="list-style-type: none"><li>• <b>Taylor Jones, University of Pittsburgh</b> - Impact of slip resistant shoe outsole parameters on available coefficient of friction</li><li>• <b>Richard Bowman, Intertile Research Pty Ltd.</b> - Transition step slipping responses to perceived floor surface characteristics in a virtual reality environment</li><li>• <b>Carl Strautins, Safe Environments</b> - Development of clinical based evidence in assessing the risk of slip and falls</li><li>• <b>Takeshi Yamaguchi, Tohoku University</b> - Shoe sole design for high slip resistance on powder-contaminated floor surface</li><li>• <b>Philippe Dixon, Harvard T.H. Chan School of Public Health</b> - Dynamic stability of gait is reduced for young and older adults on an uneven brick walkway</li></ul>



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	<ul style="list-style-type: none"><li>• <b>Taylor Winberg</b> – Reactive balance control: the effect of safety floors</li></ul>
10:00am – 10:15am	<b>Morning Coffee &amp; Networking Break</b>
10:15am – 11:15am	<b>Panel Session 8: Innovations in the Management of Falls in Advanced Dementia</b> <ul style="list-style-type: none"><li>• <b>Meghan Marcil, Toronto Rehabilitation Institute</b> – Measuring impulsivity as a predictor of falls in patients with advanced dementia</li><li>• <b>Elham Dolatabadi, Toronto Rehabilitation Institute</b> – Ambient gait monitoring technology to predict fall risk in dementia</li><li>• <b>Karen Van Ooteghem, Toronto Rehabilitation Institute</b> – Mobility staging in advanced dementia: Scoping the literature for validated measures of mobility in dementia populations</li></ul>
11:15am - 12:15pm	<b>Panel Session 9: Preventing Falls in the Workplace</b> <ul style="list-style-type: none"><li>• <b>Akihiro Ohnishi, National Institute of Occupational Safety and Health</b> - Analysis of occupational accidents related to the use of tail lifts in Japan</li><li>• <b>Bertrand Galy, Institut de recherche Robert Sauvé en santé et en sécurité du travail</b> - Quick design of horizontal lifelines considering anchorage flexibility</li><li>• <b>Andre Lan, Institut de recherche Robert Sauvé en santé et en sécurité du travail</b> - Evaluation of a horizontal lifeline system and onsite braced trusses as its' host structure during roof installation</li><li>• <b>Xiuwen Sue Dong, The Center for Construction Research and Training, United States</b> - Surveillance and Prevention of Fall Injuries in the U.S. Construction Industry</li><li>• <b>Zdenek Hejzlar, Engineering Systems Inc.</b> - Reducing the Risk of Slip and Fall Accidents on Cruise Ships</li></ul>
12:15pm – 1:15pm	<b>Lunch</b>
1:15pm – 2:15pm	<b>Panel Session 10: Pushing the New Boundaries of Slip and Fall Investigations</b> <ul style="list-style-type: none"><li>• <b>Greg Prentice, Advantage Forensics Inc.</b> - Pilot Results from Comparative COF Testing of Silastic Test Sensors</li></ul>



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	<ul style="list-style-type: none"><li>• <b>Yue Li, Toronto Rehabilitation Institute</b> - iDAPT Barefoot Friction Research for Upcoming ANSI B101.4 Barefoot Standard</li><li>• <b>Greg Cohen, SlipDoctors</b> - Benefits and Challenges of the BOT3000e, the GS1, the ASM, and other Tribometers</li><li>• <b>Jason Young, Advantage Forensics Inc and Dave Collette, Substratum Group</b> - Testifying on Slip &amp; Fall Cases in the US and Canada: Tips &amp; Tricks</li></ul>
2:15pm – 2:45pm	<b>Panel Session 11: Updates from the UK Slip Resistance Group</b> <ul style="list-style-type: none"><li>• <b>Steve Thorpe, The United Kingdom Slip Resistance Group</b></li></ul>
2:45pm - 3:00pm	<b>Afternoon Coffee &amp; Networking Break</b>
3:00pm – 4:00pm	<b>Panel Session 12: Fall Simulation to Improve Safety</b> <ul style="list-style-type: none"><li>• <b>Philippa Gosine, Toronto Rehabilitation Institute and University of Toronto</b> - Fall simulation to inform environmental design</li><li>• <b>Tyler Weaver, University of Waterloo</b> - Balance recovery after a simulated trip: predictors of landing phase control in young and older adults</li><li>• <b>Carolyn Duncan, Virginia Tech</b> - On shaky ground: Using simulation to prevent workplace falls</li><li>• <b>Iris Levine, University of Waterloo</b> - Distribution of loads at the hip during lateral falls in human volunteers: implications for hip fracture prediction and protective equipment design</li><li>• <b>Andrew Laing, University of Waterloo</b> - High energy falls – simulations with drop towers and mathematical models</li></ul>
4:00pm – 4:15pm	Closing remarks, <b>Richard Bowman</b> , Chair International Ergonomics Association Technical Committee on Slips, Trips, and Falls