

RCCADS Public Workshop

Thursday, May 25, 2023



WORKSHOP AGENDA



- 8:00 - 8:20** **Welcome, Opening Remarks, and RCCADS Overview**
Laura Watkins, Allison Kender | Transportation Research Center Inc.
- 8:25 - 10:25** **Session 1**
- 8:25** **Lumbar Spine Response Sensitivity to Axial Compression****
Michael R. Burns | University of Virginia Center for Applied Biomechanics
- Michael R. Burns, Jason R. Kerrigan, Kalle C. Chastain, Bronislaw Gepner, Jason Forman | University of Virginia Center for Applied Biomechanics
- 8:50** **PMHS Responses and Injuries in a Homogeneous Rear-Facing Seat Condition at a High-Speed Frontal Impact****
Yun-Seok Kang, Ph.D | Injury Biomechanics Research Center, The Ohio State University
- Yun-Seok Kang, Vikram Pradhan, Angela Tesny, Tim DeWitt, Alexander Bendig, Gretchen Baker, Angelo Marcallini, Zachary Haverfield, Amanda M. Agnew, John H. Bolte IV | Injury Biomechanics Research Center, The Ohio State University
- 9:15** **Evaluating the Influence of Pre-Tensioning and Seat Back Recline on Lap Belt Fit and Pelvic Angle in Automobile Occupants****
Peter Cripton, Ph.D | University of British Columbia
- Peter Cripton¹, Jason Forman², Paris Vakiel¹, Gabrielle Booth³, Carolyn Roberts³, Sarah Romani¹, Olivia Mergler², Honglin Zhang¹, Bengt Pipkorn⁴, Gunter Siegmund³ | 1: University of British Columbia, 2 : University of Virginia Center for Applied Biomechanics, 3: MEA Forensic, 4: Autoliv
- 9:40** **Submarining and Rib Fracture Prediction: Leveraging Existing Datasets****
Devon Albert, Ph.D | Center for Injury Biomechanics, Virginia Tech
- Devon Albert, Andrew Kemper, Warren Hardy | Center for Injury Biomechanics, Virginia Tech
- 10:05** **Panel Q&A and Discussion**
- 10:25-10:35** **Break**

**Indicates RCCADS Funded Project

10:35-12:35 **Session 2**

10:35 **Update on Refinements to THOR to Improve Usability and Biofidelity in Diverse Seating Postures****

Jason Forman, Ph.D | University of Virginia Center for Applied Biomechanics

Jason Forman¹, John Paul Donlon¹, Bronislaw Gepner¹, Adrian Caudillo-Huerta¹ William Marshall², Derek Winter², Paul Lemmen² | 1: University of Virginia Center for Applied Biomechanics, 2: Cellbond ATD

11:00 **Hard Tissue Fracture Assessment in Human Body Models**

Duane Cronin, Ph.D | University of Waterloo

11:25 **Pelvic Responses and Injuries to Male Post-Mortem Human Subjects (PMHS) in Rear-Facing Seat Configurations in High-Speed Frontal Impacts**

Yun-Seok Kang, Ph.D | Injury Biomechanics Research Center, The Ohio State University

Yun-Seok Kang¹, Jason Stammen², Amanda M. Agnew¹, Gretchen Baker¹, Vikram Pradhan¹, Angela Tesny¹, Alexander Bendig¹, Alena Hagedorn³, Kevin Moorhouse², John H. Bolte IV¹ | 1: Injury Biomechanics Research Center, The Ohio State University, 2: Vehicle Research and Test Center, National Highway Traffic Safety Administration, 3: Transportation Research Center Inc.

11:50 **Status Update on GHBMC Model Development**

Scott Gayzik, Ph.D | Wake Forest University School of Medicine, Center for Injury Biomechanics

12:15 **THOR-AV Biomechanical Responses in 52km/h Sled Test with Upright and Reclined Semi-Rigid Seat**

Jerry Wang, Ph.D | Humanetics Innovation Solutions, Inc.

Jerry Wang¹, Matt Reed² | 1: Humanetics Innovation Solutions, Inc., 2: University of Michigan Transportation Research Institute

12:40 **Panel Q&A and Discussion**

1:00-1:10 **Closing Remarks**