66th Annual AAAM Scientific Conference
Schedule At-A-Glance

Tuesday, 10/11/22

10:00 AM – 12:00 PM   **AIS Content Subcommittee Meeting (Windsor Room)**

12:00 PM – 5:30 PM   **Registration Open**

1:30 PM – 4:20 PM   **Student Symposium**

4:30 PM – 5:30 PM   **Student Speed Mentoring (Brighton Room)**

> **1:30 PM – 1:55 PM**   **Welcome & Keynote Address by Apoorva Pramod Hungund**
>
> 1:55pm: Injuries for the Pregnant Occupant from Field Data - Corina Espelien
>
> 2:10pm: Factors affecting Severe Thoracic Injuries of Occupants in Frontal Oblique Collision - Doo Ruh Choi
>
> 2:25pm: National Emergency Medical Services Information System (NEMSIS) Delay Analysis - Jacob Valente
>
> 2:40pm: Evaluation of serious occupant injuries using a deterministic and probabilistic method in frontal crashes - Manuel Valdano
>
> 2:55 PM – 3:15 PM   Break
>
> 3:15pm: Automatic Emergency Braking Sensor Guidelines for Real-World Cross-Centerline Events - Joseph Brandon-Gopiao
>
> 3:30pm: The association between presence of advanced driving features with risk of injury - Lindy Reynolds
>
> 3:45pm: Categorizing Road Departure Residual Crashes for a Simulated Lane-Keep-Assist (LKA) System - Andrew Galloway
>
> 4:00pm: Estimating the Contributions of Automatic Emergency Braking to Achieving Vision Zero for Frontal Crashes - Morgan Dean

5:30 PM – 7:00 PM   **Welcome Reception (Crystal Ballroom)**

Wednesday 10/12/22

8:00 AM – 8:15 AM   **Welcome**

8:15 AM – 9:15 AM   **Leah Shahum | Keynote Speaker**

9:15 AM – 9:30 AM   **Break**

9:30 AM – 11:10 am   **Session 1: Drugs/Alcohol/Human Factors/Predictive models**

> 9:30 AM - Simulated driving performance of daily and occasional cannabis users during distraction tasks following acute cannabis use - Ryan Miller
>
> 9:50 AM - Perceived Effects of Cannabis: Generalizability of Changes in Driving Performance - Thomas Burt

10:10 AM - Construction of Collision-Type Prediction Model Based on Light Gradient Boosting Machine Algorithm and Elucidation of Data Causality and Relevance by Bayesian Network - Junhao Wei

10:20 AM - A Naturalistic Study of Passenger Seating Position, Posture, and Belt Use in Second-Row Seats - Jason Hallman

10:40 AM - Identifying Community-Level Disparities in Access to Drivers Education and Training: Toward a Definition of Driver Training Deserts - Jasmine Siyu Wu

11:00 AM - A Study of Self-Reported Personal Cannabis Use and State Legal Status and Associations with Engagement in and Perceptions of Cannabis-Impaired Driving - Timothy Brown

11:10 AM-11:25 AM   **Break**

11:25 AM – 12:10 PM   **SIG Session: Road Safety in Low- and Middle-Income Countries (LMIC) & Motorcycle Safety**

Presentations by Dave Shelton, Senior Transport Specialist at Asian Development Bank and Jessica Truong, Secretary General, Towards Zero Foundation.

12:10 PM – 1:30 PM   **Lunch, The London Grill**

1:30 PM - 2:50 PM   **Session 2: Biomechanics I**

1:30 PM - Loading rate effects on trade-off of fractures from pelvis to lumbar spine under axial impact loading - Narayan Yoganandan

1:50 PM - Repositioning forward-leaning vehicle occupants with pre-pretensioner belt and a startle-based warning in pre-crash scenarios - Valentina Graci

2:10 PM - Pilot Characterization of Head Kinematics in Grassroots Dirt Track Racing - Tanner Filben

2:30 PM - Cervical Spine Kinematics in Unbraced and Braced Subjects during Inverted Freefalls - Loay Al-Salehi

2:40 PM - Comparisons of Head Injury Risk Prediction Methods to Field Data in Far-Side Impacts - Karan Devane

2:50 PM-3:05 PM   **Break**

3:05 PM-4:15 PM   **Session 3: Biomechanics II**

3:05 PM - Implementation and Calibration of Active Small Female and Average Male Human Body Models using Low-Speed Frontal Sled Tests - Karan Devane

3:25 PM - Hybrid III dummy lumbar spine responses under vertical impact loading - Narayan Yoganandan

3:35 PM - Mechanisms of cervical spine injury and coupling response with initial head rotated posture – implications for AIS coding   - Narayan Yoganandan

3:45 PM - Methodology to Measure Seat Belt Fit in Relation to Skeletal Geometry using an Upright Open MRI - Gabrielle Booth

3:55 PM - Regional Strain Response of an Anatomically Accurate Non-Human Primate Finite Element Brain Model under Frontal Impact - Tyler Rooks

4:05 PM - Characterization of Subcutaneous Pelvic Adipose Tissue Morphology and Composition at the Plane of the ASIS: A Retrospective Study of Living Subjects - Austin Moore

4:15 PM - 4:30 PM   **Break**

4:30 PM - 5:05 PM   **Session 4: Poster Presentations**

4:30 PM - Using Training to Improve Drivers' Knowledge and Understanding of Advanced Driver Assistance Systems – An Experimental Study - Jaji Pamarthi

4:35 PM - Sensitivity to dose or blood levels of alprazolam in predicting driving impairment - Timothy Brown

4:40 PM - Binge-Drinking and Alcohol-Related Symptoms May Underlie Patterns of Dynamic Brain Oscillations of Resource Allocation During High-Fidelity Driving Simulation - Barbara Banz

4:45 PM - Performance of a Novel Head Neck Support System in Nearside and Farside Impacts - Matt Maltese

4:50 PM - An analysis of acute road traffic injuries in Kenya to address regional and economic disparities through targeted injury prevention initiatives - Bojana Radan

4:55 PM - Comparison of the Mental Representation of Traffic Signs in Ecuador: Regulatory signs and Warning signs - Jose Vilchez

5:00 PM - Boosters In A Bag: A Pandemic Innovation - Marilyn Bull

Thursday 10/13/22

8:00 AM – 9:00 AM   **Keynote Address | Cecilia Sunnevång**

9:00 AM-9:10 AM   **Break**

9:10 AM-10:40 AM   **Session 5: Vulnerable Road Users (Motorcycles/Pedestrians)**

9:10 AM - Mitigating fuel tank syndrome pelvic injuries – is there potential for rider worn protectors? - Bianca Albanese

9:30 AM - Motorcycle Curve Assist: a novel approach based on active speed control for crash injury reduction - Giovanni Savino

9:50 AM - Influence of certification in the impact response of motorcycle helmets: a multi-country study - Francisco Lopez-Valdes

10:00 AM - Interdependence of Driver and Pedestrian Behavior in Naturalistic Roadway Negotiations - Thomas Noonan

10:20 AM - Injury Patterns in Motor Vehicle Collision-Pediatric Pedestrian Deaths - Moheem Halari

10:40 AM - 11:00 AM   **Break**

11:00 AM - 12:30 PM   **Session 6: Vulnerable Occupants I (Elderly/Small Female/Wheelchair Occupants)**

11:00 AM - Age Targeted Human Body Models Indicate Increased Thoracic Injury Risk with Aging - Brian von Kleeck

11:20 AM - Improving Protection System for Wheelchair-seated Occupants in Vehicle Side Impacts - Kathleen Klinich

11:40 AM - Effects of Muscle Quantity and Bone Mineral Density on Injury and Outcomes in Older Adult Motor Vehicle Crash Occupants - William Armstrong

12:00 PM - Frontal Crash Injury Investigation of Elderly Compared to Young Occupants - Sagar Umale

12:20 PM - Comparison of small female occupant model responses with experimental data in reclined posture - Sagar Umale

12:30 PM-1:45 PM   **Lunch (Choose your own adventure)**

1:45 PM - 2:45 PM   **Session 7: Vulnerable Occupants II (Child Occupants)**

1:45 PM - Interactions Between Rearward-Facing Child Restraint Systems and the Front Row Seatback in Frontal Impact Sled Tests - Declan Patton

2:05 PM - Consumer usability of flexible vs. rigid lower anchor hardware in child restraint system (CRS) installations - Julie Mansfield

2:25 PM - Analysis of 6YO Pediatric Human Body Model Kinematics and Kinetics to Determine Submarining Across Naturalistic Seating Postures - Declan Patton

3:15 PM - 4:05 PM   **Session 8: Vulnerable Occupants II (continued)**

3:15 PM - The effect of the moderately reclined seat-back angle on the kinematics of the Large-Omnidirectional Child Anthropomorphic Test Device with and without a belt-positioning booster in frontal crashes - Valentina Graci

3:35 PM - Effects of restraint parameters using PIPER 6y in reclined seating during frontal impact - Katarina Bohman

3:55 PM - Restraint Use Characteristics among Crash-Involved Child Passengers: Identifying Opportunities to Enhance Optimal Restraint Use - Rachel Myers

4:00 PM – 4:15 PM   **Break**

4:15 PM – 5:00 PM   **Annual Business Meeting**

6:00 PM – 7:00 PM   **President's Reception**

7:00 PM – 9:00 PM   **Awards Dinner**

Friday 10/14/22

8:20 AM-9:30 AM   **Session 9: Injury Epidemiology (Injury Patterns/Trauma Data/Crash Data)**

8:20 AM - Improving identification of crash injuries: Statewide integration of hospital discharge and crash report data - Leah Lombardi

8:40 AM - Improving the safety relevance of front crash prevention testing programs: An examination of common characteristics in police-reported rear-end crashes - David Kidd

9:00 AM - Evaluation of mechanism of injury criteria for field triage of occupants involved in motor vehicle collisions - Thomas Hartka

9:20 AM - A pilot analysis of crash severity of electric passenger cars in Spain (2016-2020) - Luis F. S. Merchante

9:30 AM-9:40 AM   **Break**

9:40 AM-10:50 AM   **Session 10: Injury Epidemiology II**

9:40 AM - Proximity to fatal accidents predicts police citation rates on urban and rural roads - Pavel Chernyavskiy

10:00 AM - Implementation of a Road Traffic Crash Injury Surveillance Tool in a Trauma Referral Hospital in Kisumu Hospital in Kisumu City, Western Kenya: Lessons Learned from the Pilot Study - Bojana Radan

10:20 AM - Breadth of use of the Abbreviated Injury Scale in the National Trauma Data Bank - Mark Sochor

10:30 AM - Factors Influencing Injury Severity to Belted Drivers in Car Crashes in India - Jeya Padmanaban

10:50 AM-11:00 AM   **Break**

11:00 AM-12:00 PM   **Session 11: Automated Driving System (ADS)/ Advanced Driver-Assistance Systems (ADAS)**

11:00 AM - Characterizing Driver Speeding Behavior when Using Partial-Automation in real world driving - Samantha Haus

11:20 AM - A Survey on Knowledge and Perceptions of Advanced Driver Assistance Systems in Massachusetts Drivers - Apoorva Pramod Hungund

11:30 AM - Methodology for Determining Maximum Injury Potential for Automated Driving System Evaluation - Kristofer Kusano

11:40 AM - Assessment of the effect of Motorcycle Autonomous Emergency Braking (MAEB) based on real-world crashes - Giovanni Savino

12:00 PM – 12:15 PM   **CLOSING SESSION**