

IRCOBI Konferenzen

[IRCOBI](#)-Konferenzen (in Europa)



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12. - 14. September 2018 - Athens (Greece)

 Dieser Artikel oder Abschnitt bedarf einer Überarbeitung. Hilf mit, ihn zu [verbessern](#), und entferne anschließend diese Markierung.

13. - 15. September 2017 - Antwerp (Belgium)

Bertil Aldman Memorial Lecture

- N Yoganandan: International Research Contributions on the Biomechanics of Injury: Honoring the past and looking towards the future

Murray Mackay Appreciation

- C Simms: The Need for Accident Investigation: Murray Mackay's work presented at Conferences of the International Research Council on Biomechanics of Injury from 1973 to 2013

Keynote Lecture

- S Wang: Treat the Patient, Not Just Their Disease

Session S1-1 - Automated driving / Driver behaviour

- M Lindman, I Isaksson-Hellman, J Strandroth: Basic numbers needed to understand the traffic safety effect of Automated Cars
- S Jorlöv, K Bohman, A Larsson: Seating Positions and Activities in Highly Automated Cars - A Qualitative Study of Future Automated Driving Scenarios
- H C Cutcliffe, J Ólafsdóttir, J Östh, J Davidsson, K Brolin: Gender differences in Occupant Posture during Driving and Riding
- T Dziwowski, K Golon, D Jastrzebski, A Kopyt, M Mirosław, M Matyjewski, M Papis: Short communication: From aDRIVE Project to INTEGRATED Safety

Session S1-2 - Accident analysis / Injury epidemiology

- R Rajaraman, M Patel, J Padmanaban: Characteristics of passenger car crashes in India, and a preliminary assessment of Euro NCAP frontal impact tests for passenger cars in India
- W Tatem, H Gabler: Preliminary Analysis of Serious-to-Fatal Injury in Rear Impact Crashes in the United States
- S Piantini, M Mangini, N Baldanzini, M Pierini, A Franci, A Peris: Prediction of motorcyclist serious injury in powered two-wheeler to other vehicle urban crash
- M Wisch, M Lerner, E Vukovic, D Hynd, A Fiorentino, A Fornells: Injury Patterns of Older Car Occupants, Older Pedestrians or Cyclists in Road Traffic Crashes with Passenger Cars in Europe - Results from SENIORS
- R Elrud, H Stigson, M Ohlin, K Alexanderson, L Kjeldgård, E Friberg: Sickness Absence among Passenger Car Occupants following a Crash

Session S1-3 - Accident analysis / Injury epidemiology

- Y Kitagawa, S Hayashi, T Yasuki: Comparison of Impact Kinematics between Non-obese and Obese Occupants in Frontal and Lateral Impacts
- M Kelley, J Talton, A Usoro, A Weaver, E Barnard, A Miller: Upper Extremity Injury Patterns in Side-Impact Crashes
- R Ramachandra, T Kashikar, J Bolte IV: Short Communication: Injury Patterns of Elderly Occupants Involved in Side Crashes
- M Woering, J Vander Sloten, B Depreitere: Short Communication: The development of a new low cost accident database, with the addition of an online feature to allow information-sharing by different institutes
- K Fujimoto, E Wada, S Inoue, S Sakai, S Izumi, H Numajiri, J Tanabe: Short Communication: Investigation of the Crew Injury Biomechanics during Water Landing for Human Space Flight

Session S1-4 - Vulnerable Road Users

- A Malczyk, J Bende: Crashes between Heavy Vehicles and Bicyclists: Characteristics, Injury Patterns and Potentials for Driver Assistance Systems
- E Song, J Uriot, P Potier, D Dubois, P Petit, X Trosseille, R Douard: Reference PMHS Tests to Assess Whole-Body Pedestrian Impact Using a Simplified Generic Vehicle Front-End
- Y Han, Q Li, W He, F Wan, B Wang, K Mizuno: Analysis of Vulnerable Road User Kinematics Before/During/After Vehicle Collisions Based on Video Records
- S Shang, D Otte, C Simms: Short Communication: Pedestrian-ground contact injuries observed

from German in-depth accident data

- K Singh, A Chawla, S Mukherjee: Short communication: Finite Element Simulation Estimation of Wheel-base Reduction and Deformation Energy of a Typical Indian Motorcycle Crash at Known Impact Speed against Sedan Car
- Z Sun, B Gepner, E Spratley, J Toczyski, J Kerrigan: Short communication: New Approaches to Pedestrian Knee Joint Biomechanics

Session S1-5 - Brain / Head Injury / Helmets

- H Stigson, M Rizzi, A Ydenius, E Engström, A Kullgren: Consumer Testing of Bicycle Helmets
- M Robinson, S Soe, G McShane, R Celeghini, R Burek, M Alves, B Hanna, P Theobald: Developing Elastomeric Cellular Structures for Multiple Head Impacts
- C Deck, N Bourdet, P Halldin, G DeBruyne, R Willinger: Protection capability of bicycle helmets under oblique impact assessed with two separate brain FE models
- D Koncan, R Zemek, M Gilchrist, T Hoshizaki: Helmet Construction Influences Brain Strain Patterns for Events Causing Concussion in Youth Ice Hockey
- K-U Schmitt, M Muser, H Thüler, O Brügger: Short Communication: Ice hockey boards: how to assess the biomechanical loading of a player upon impact?
- C Stuart, P Cripton: Short communication: Design of a Novel Helmet Impact Testing Apparatus Representative of Snow Sports Head Injury
- J Clark, T Connor, C Williams, M Gilchrist: Short communication: Damage to Real World Equestrian Helmets Sustained from Impact against Different Surfaces
- T Bońkowski, L Hynčík, L Šoltés: Short communication: Motorcycle Helmets: The Population Diversity Influence on Head Injury Criterion Assessment

Session S1-6 - Dummy Technology

- J Jermakian, M Edwards: Kinematics Comparison between the Hybrid III 6 Year-old with Standard Pelvis and Modified Pelvis with Gel Abdomen in Booster Sled Tests
- C Visvikis, J Carrol, C Klimitsch: Sensitivity of the Q-Series Abdominal Pressure Twin Sensors to Loading Type and Position in Dynamic Restraint System Loading Tests
- D Hynd, J Carroll, K Severson: Abdomen Impact Testing of the Hybrid III Rail Safety (H3-RS) Anthropometric Test Device
- R Ramachandra, Y-S Kang, A Hagedorn, J Stammen, J Bolte IV: Abdominal Biofidelity Assessment of 50th Percentile Male and 10-Year-Old ATD Responses Relative to a Recently Developed Belt-Loading Corridor
- M Reed, K Boyle: Short communication: Development of a Manikin Representing a Two-Year-Old Child for Belt-Fit Measurement
- F Lopez-Valdes, O Juste, A Lorente, A Piqueras, M Maza, J Muehlbauer, S Schick, B Pipkorn, K Mroz, S Peldschus: Short communication: Comparison of the Kinematics and Dynamics of the THOR-50M Dummy and Elderly Volunteers in Low-Speed Frontal Decelerations

Session S1-7 - Dummy Technology

- S Maach, B von Rosen, L McCauley, J Levine, J-P Dionne: Comparison of Hybrid III head response to shock tube and explosive blast loading
- Y Miyazaki, A Railkar, S Awamori, A Kokeyuchi, I Amamori, M Katagiri, K Yoshii: Intracranial Brain Motion Measurement in Frontal Sled Tests by using a New Anthropometric Test Dummy Head capable of Direct Brain Motion Evaluation and Visualisation
- D Suzuki, K Nakai, S Enami, R Palacin: Short communication: A Countermeasure to Reduce Secondary Impact Velocity and Rib Deflection Criterion of Longitudinal-Seat Passengers in Railway Collisions

Session S1-8 - Far Side Impacts

- M Arun, S Umale, D Halloway, F Pintar, N Yoganandan: Can 1 -DOF Sled Tests Reproduce Real World Far-Side Crashes? A Finite Element Study
- D Perez-Rapela, C Markusic, J Forman, S Montesinos Acosta, T Kim, J Crandall: Short Communication: Comparison of WorldSID to PMHS kinematics in far-side impact
- D Perez-Rapela, C Markusic, J Forman, S Montesinos Acosta, T Kim, J Crandall: Short communication: IRTACC and RibEye performance comparison in far-side test configurations

Session S1-9 - Vehicle Technology / Restraint Systems

- M Jones, S Ebert, J Hu, M Reed: Effects of High Levels of Obesity on Lap and Shoulder Belt Paths
- G Baker, I Stockman, K Bohman, L Jakobsson, M Svensson, A-L Osvalder, M Wimmerstedt: Kinematics and Shoulder Belt Engagement of Children on Belt-positioning Boosters during Emergency Braking Events
- A-L Osvalder, K Bohman, I Hansson: Adult's and Children's Attitudes towards Extra Seat Belts in the Rear Seats
- M Hitosugi, T Koseki, M Takaso, Y Motozawa: Serious seatbelt injuries sustained by pregnant women sitting in rear seats: anthropometric analyses and confirmation in sled tests
- P Larsen, T Mousel: Short communication: Radio-Frequency Based Detection of Unattended Children to Reduce In-Vehicle Heat Stroke Fatalities

Session S1-10 - Vehicle Technology / Restraint Systems

- A Gupta, F Alvarez, T Daniel, D Larner: Investigating the Use of Adhesively-Coated External Airbag to Reduce Post-Impact Kinematics
- M Edwards, C Nash: Inflatable Shoulder Belts and Inboard Upper Anchor Shoulder-belt Geometry in Far-side Oblique Impacts
- M Östling, H Saito, A Vishwanatha, C Ding, B Pipkorn, C Sunnevång: Potential Benefit of a 3+2 Criss Cross Seat Belt System in Frontal and Oblique Crashes

Session S2-1 - Computer Modelling / Human Body Models

- A Drake, E Takhounts, V Hasija: Investigation of Parameters Affecting Brain Model Validation and Brain Strains Using the SIMon Finite Element Head Model
- A Talebanpour, L Smith: A Comparison between Simulated and Measured Human Brain Response under Mild Acceleration
- J Östh, M Mendoza-Vazquez, A Linder, M Svensson, K Brodin: The VIVA OpenHBM Finite Element 50th Percentile Female Occupant Model: Whole Body Model Development and Kinematic Validation
- A Lakshminarayana, C Shah: Short Communication: Development of the THOR-5F advanced frontal small female dummy FE model

Session S2-2 - Computer Modelling / Human Body Models

- S Kunitomi, Y Yamamoto, R Kato, J Antona-Makoshi, A Konosu, Y Dokko, T Yasuki: The Development of the Lower Extremity of a Human FE Model and the Influence of Anatomical Detailed Modelling in Vehicle-to-Pedestrian Impacts
- J Tang, J Hu, B Nie, Q Zhou: An Algorithm for Rapid Adjustment of Lower Extremity Posture of a Pedestrian Model
- C Klug, F Feist, M Raffler, W Sinz, P Petit, J Ellway, M van Ratingen: Development of a

Procedure to Compare Kinematics of Human Body Models for Pedestrian Simulations

- T Fuchs, S Peldschus: Short Communication: Qualifying FE Human Body Models for Specific Load Cases: Assessing Uncertainties during the Validation Process
- A Chhabra, S Paruchuri, K Mishra, D Kaushik, A Chawla, S Mukherjee, R Malhotra: Short Communication: Spline-based repositioning for the vertebral column of the GHBMC Human Body Finite Element Model
- A Chhabra, S Paruchuri, K Mishra, D Kaushik, A Chawla, S Mukherjee, R Malhotra: Short Communication: Contour-based Repositioning of lower limbs of the GHBMC Human Body FE Model
- A Meynen, D De Kegel, N Famaey, H van Lenthe, J Vander Sloten: Short Communication: Analysing the Validity of a Skull Fracture Energy Criterion through Subject-specific Finite Element Modelling of Skull Impacts

Session S2-3 - Thorax Injury

- Y-S Kang, A Agnew, C-B Hong, K Icke, J Bolte IV: Elderly PMHS Thoracic Responses and Injuries in Frontal Impacts
- S Ejima, S Holcombe, P Zhang, B Derstine, R Goulson, C Kohoyda-Inglis, J MacWilliams, S Wang: The Effect of Rib Fracture Patterns in the Obese
- D Albert, Y-S Kang, A Agnew, A Kemper: A Comparison of Rib Structural and Material Properties from Matched Whole Rib Bending and Tension Coupon Tests
- B Donnelly, H Rhule, K Moorhouse, Y-S Kang, J Stammen: An Improved Deflection Energy Method to Normalise PMHS Thoracic Response Data

Session S2-4 - Integrated Safety / Driver behaviour

- M Hu, Y Li: Short Communication: Same-Direction-Pattern of Drivers' Avoidance Behaviour in Critical Intersection Situations – Field Accident Data Analysis and Driving Simulation Study
- D Jastrzębski, A Kopyt, K Golon, M Mirosław, T Dziewoński: Short Communication: Fuzzy logic as a model of an actor-driver in simulator scenarios
- T Izumiyama, N Nishida, H Iwanaga, X Chen, J Ohgi, I Sakuramoto, R Asahi, S Sugimoto, M Ueno: Short Communication: The Analysis of an Individual Difference using Human Skeletal Morphology in Automotive Seated Posture

Session S2-5 - Spine Biomechanics

- V Hasija, E Takhounts, E Lee, M Craig: On the importance of the forces and moments at the occipital condyles in predicting ligamentous cervical spine injuries
- R Lechner, I Hailer, S Horion, H Steffan: Validation of the Causality of Influencing Seat Design Parameters, Identified by using Multivariate Analysis Methods, on the BioRID-II ATD Kinematics in Low-Speed Rear-End Impacts
- F Sato, K Holmqvist, A Linder, M Svensson, A Kullgren, J Tanabe, K Yamazaki: Average-sized Male and Female Rear-impact Dummy Models in Simulations of Real World Cases Addressing Sensitivity in Whiplash Associated Disorder Assessment
- B Pilarczyk, C Simms, D Cronin: Short communication: Effect of Different Muscle Fibre Types on the Neck Kinematics for Frontal Impact
- F Khor, D Cronin, C Van Toen: Short communication: Lower Cervical Spine Hard Tissue Injury Prediction in Axial Compression
- D Mang, J-S Blouin, G Siegmund: Short communication: A Comparison of Anti-Whiplash Seats During Low/Moderate-Speed Rear-End Collisions
- T Whyte, A Melnyk, C Van Toen, J Street, T Oxland, P Cripton: Short communication: The effect of translational constraint on cervical spine kinetics, kinematics and canal occlusions in

impacts inducing lateral bending

- J John, N Yoganandan, M Arun, G Kumar: Short communication: Sagittal Curvature and Vertebra Axial Geometry Effects on Cervical Spine Global and Local Responses
- D Shen, D Cronin: Short communication: Effect of Active Musculature Parameters on Neck Response and Potential for Injury

Session S2-6 - Tissue Biomechanics / Computer Modelling

- J Hu, K Zhang, A Fanta, M Jones, M Reed, M Neal, J-T Wang, C-H Lin, L Cao: Stature and Body Shape Effects on Driver Injury Risks in Frontal Crashes: A Parametric Human Modelling Study
- A Christou, G Grigoriadis, D Carpanen, N Newell, S Masouros: Short Communication: Biomechanics of a lumbar functional unit using the finite element method
- N Newell, D Carpanen, A Christou, G Grigoriadis, J Little, S Masouros: Short Communication: Strain Rate Dependence of Internal Pressure and External Bulge in Human Intervertebral Discs during Axial Compression
- G Byrne, S Tiernan: Short communication: An Investigation of the Effect of Impact Locations on Strain within the Brain
- J Giudice, A Alshareef, J Forman, M Panzer: Short communication: Measuring 3D Brain Deformation During Dynamic Head Motion Using Sonomicrometry
- D Kumar, S Mukherjee, A Chawla: Short communication: Evaluation of Load Path for Injury Prediction in Soft Tissues
- O Martynenko, C Kleinbach, M Hammer, D Haeufle, C Mayer, S Schmitt: Short communication: Advanced Hill-type Muscle model as User Defined Material in LS-DYNA with Routing Capability for Application in Active Human Body Models
- J Fehr, F Kempter, C Kleinbach, S Schmitt: Short communication: Guiding Strategy for an Open Source Hill-type Muscle Model in LS-Dyna and Implementation in the Upper Extremity of a HBM
- C Kleinbach, J Fehr: Short communication: Comparison of Muscle Activated HBMs in a Lane Change Manoeuvre

Session S2-7 - Brain / Head Injury

- C Eckersley, R Nightingale, J Luck, C Bass: Effect of Neck Musculature on Head Kinematic Response Following Blunt Impact
- M Ghajari, P Hellyer, D Sharp: Short communication: Predicting the Location of Chronic Traumatic Encephalopathy Pathology
- A Alshareef, J Giudice, J Forman, M Panzer: Short communication: Evaluating the Biofidelity of Human Brain Finite Element Models Using Sonomicrometry Data
- G Tierney, C Simms: Short communication: The effect of intended primary contact location on tackler head impact risk
- P Siegkas, M Ghajari: Short communication: Computational modelling of oblique impacts on helmets with a new add-on lining system
- D Zouzias, G De Bruyne, J Ivens: Short communication: A proposed motion tracking technique to assess the kinematics of oblique impacts

Session S2-8 - Lower Extremity Injury

- G Grigoriadis, D Carpanen, C Webster, N Newell, S Masouros: Short Communication: The Effect of the Posture of the Lower Limb in Anti-Vehicular Explosions
- R Hunter, M Murach, K Briley, A Agnew: Short communication: Preliminary Investigation into the Co-variation of Cortical Geometric Properties and vBMD along the Length of the Tibia
- C Roberts, J Kerrigan, J Forman: Short communication: Shod and Unshod Kinematic Response

of the Female Lower Extremity under Dorsiflexion Loading

- B Nie, J Forman, A Mait, J-P Donlon, R Kent: Short communication: Foot Position Shifts Injury Initiation among Ankle Ligaments during External Rotation

Session S2-9 - Thorax Injury

- J Boutillier, S De Mezzo, C Deck, P Magnan, P Naz, R Willinger: Short Communication: Thoracic response of post-mortem swine under blast loadings
- A Agnew, M Murach, E Misicka, K Moorhouse, J Bolte IV, Y-S Kang: Short communication: The Effect of Body Size on Adult Human Rib Structural Properties
- Holcombe, S Ejima, S Wang: Short communication: Calcification of Costal Cartilage in the Adult Rib Cage
- D Jastrzębski, D Poulard, M Panzer: Short communication: Development of Morphed Ribcage Finite Element Models for Comparison with PMHS Data
- D Singh, D Cronin, A Slutsky: Short communication: Micro-model to Evaluate Alveolar Wall Mechanical Properties from Pressure-Volume Response
- A Harden, Y-S Kang, K Moorhouse, A Agnew: Short communication: Variance in Fracture Location of Human Ribs Subjected to Dynamic Antero-Posterior Bending

14. - 16. September 2016 - Malaga (Spain)

Bertil Aldman Memorial Lecture

- M van Ratingen: Saving Lives with Safer Cars: The Past, Present and Future of Consumer Safety Ratings

Sessions S1-1 / S1-2 - Accident Analysis / Injury Epidemiology

- A Bukova-Zideluna, A Villerusa, A Lama: An overview of injured bicyclists in traffic accidents: analysis of traffic accident database in Latvia for the period 2010-2014
- R Fredriksson, B Sui: Powered Two-Wheeler Accidents in Germany with Severe Injury Outcome - Accident Scenarios, Injury - Sources and Potential Countermeasures
- G Li, D Otte, J Yang, C Simms: Can a Small Number of Pedestrian Impact Scenarios Represent the Range of Real-world Pedestrian Injuries?
- J Shaikh, R Fredriksson: Short communication: Vulnerable Road User Accidents in India
- T Karlsson, M Lindman, B Svanberg, Z Katibeh: Risk estimation for different precrash factors in run-off road crashes in curves
- J Strandroth, P Nilsson, S Sternlund, M Rizzi, M Krafft: Characteristics of future crashes in Sweden - identifying road safety challenges in 2020 and 2030
- R Rudd: Investigating a Relationship Between Standardised Crash Classification and Occupant Kinematics in Real-World Frontal Crashes
- K Brodin: Short communication: Causes of Accidental Injury Leading to Hospitalization in Sweden presented by Age and Gender for the years 2001 - 2014
- K-U Schmitt, K Furter, M Muser: Short communication: Correlation between AIS-coded injury severity and injury severity classified by the NACA score
- S Niesen, K Auerbach, M Lerner, C Pastor, A Schepers, M Wisch, R Lefering, A Malczyk, U Schmucker: Short communication: Estimation of the number of seriously injured road traffic casualties in Germany based on [GIDAS](#), using a decision tree method and the TraumaRegister DGU®
- D Suzuki, K Nakai, S Enami, R Palacin: Short communication: Relation between Secondary Impact Velocity and Behaviour of Longitudinal-Seat Passenger in Railway Collisions

Session S1-3 - Spinal Injury

- B Jordan, K-U Schmitt, D Butzer, B Zahnd: Analysis of whiplash associated disorder claims using real-world data retrieved from event data recorders: a case-control study
- L Jakobsson, M Bjorklund, A Westerlund: Thoracolumbar Spine Injuries in Car Crashes
- F Sato, M Odani, Y Miyazaki, T Nakajima, J A Makoshi, K Yamazaki, K Ono, M Svensson, J Osth, S Morikawa, S Schick, A Ferreira Perez: Investigation of Whole Spine Alignment Patterns in Automotive Seated Posture Using Upright Open MRI Systems
- J Shridharani, B Bigler, C Cox, M Ortiz-Paparoni, C Bass: Sensitive Injury Detection in the Cervical Spine Using Acoustic Emission and Continuous Wavelet Transform
- Y-S Kang, J Stammen, K Moorhouse, R Herriott, J Bolte: PMHS Lower Neck Load Calculation using Inverse Dynamics with Cervical Spine Kinematics and Neck Mass Properties
- N Newell, G Grigoriadis, A Christou, D Carpanen, S Masouros: Short communication: Mechanical characterisation of bovine intervertebral discs at a range of strain rates
- N Yoganandan, F Pintar, S Chirvi, V Chancey, B McEntire: Short communication: Lower Neck Injury Criteria from Post-Mortem Human Subject Tests using an Injury Mechanism Approach

Session S1-5 - Brain / Head Injury / Helmets

- F Feist, C Klug: A Numerical Study on the Influence of the Upper Body and Neck on Head Kinematics in Tangential Bicycle Helmet Impact
- J Olivier, F Terlich: The Use of Propensity Score Stratification and Synthetic Data to Address Allocation Bias when Assessing Bicycle Helmet Effectiveness
- A Post, S De Grau, T Ignacy, A Meehan, R Zemek, T Hoshizaki, M Gilchrist: Comparison of Helmeted Head Impact in Youth and Adult Ice Hockey
- J Clark, A Post, T Hoshizaki, T Hoshizaki, M Gilchrist: The Association among Injury Metrics for Different Events in Ice Hockey Goaltender Impacts
- K Taylor, T Hoshizaki, T Hoshizaki, M Gilchrist: Dynamic Head Response and Maximum Principal Tissue Strain for Helmeted (American Football) and Non-helmeted Impacts
- R Oeur, T Hoshizaki: The Effect of Impact Compliance, Velocity, and Location in Predicting Brain Trauma for Falls in Sport

Session S1-6 - Integrated Safety / Driver Behaviour

- C Shelat, P Ghosh, R Chitteti, C Mayer: "Relaxed" HBM - an Enabler to Pre-Crash Safety System Evaluation
- H Saito, T Matsushita, B Pipkorn, O Bostrom: Evaluation of Frontal Impact Restraint System in Integrated Safety Scenario Using Human Body Model with PID Controlled Active Muscles
- K Yamada, M Gotoh, Y Kitagawa, T Yasuki: Simulation of Occupant Posture Change during Autonomous Emergency Braking and Occupant Kinematics in Frontal Collision
- M Ostmann, L Jakobsson: An Examination of Pre-crash Braking Influence on Occupant Crash Response using an Active Human Body Model
- J Lee, J Han, H J Kim, D Lim: Short communication: Existence or Nonexistence of Causable Injury Risk Possibility at Neck Joint by using Autonomous Braking (AB) in Subsequent Frontal-Head Collision at Stationary State following AB Application
- J Han, J Lee, H Kim, D Lim: Short communication: Alterations of Muscle Activation and Moment Characteristics at Neck Joint due to Brake Force applied to Stationary Lead Vehicle in Low-speed, Rear-end Collision

Sessions S1-7 / S1-8 - Injury in Children / Child safety

- C Giordano, S Kleiven: Development of a 3-Year-Old Child FE Head Model, Continuously

Scalable from 1.5- to 6- Year-Old

- J Holtz, M Tress, C Sobotzik, H Johannsen, J Carroll, S Muller: Side-impact simulation study to investigate the protection of older child occupants in lightweight vehicles
- J Nadarasa, C Deck, F Meyer, N Bourdet, J Raul, R Willinger: Infant Eye Finite-Element Model for Injury Analysis
- F Heurlin, L Jakobsson, H Nilsson: Front passenger airbag benefits for restrained forward-facing children
- Y Han, J Ouyang, K Mizuno, A Cang: Analysis of Chest Injuries to Child Occupants Seated in Impact Shield CRS based on Dummy tests, FE Simulations and Animal Tests
- C Visvikis, J Carroll, C Klimitsch: Short communication: Sensitivity of the Q-Series Abdominal Pressure Twin Sensors to loading type and position in dynamic restraint system loading tests
- E Rola: Short communication: Parametric Study of 3-Year-Olds in a Child Restraint System with Harness Pretensioner and Load Limiter

Session S1-9 - Brain / Head Injury / Helmets (ctd.)

- J Dutschke, R Anderson, B Sandoz, J Finnie, J Manavis, T Nishimoto, T Morris, A Wells, R Turner, R Vink: A Biomechanical Model of Traumatic Contusional Injury Produced by Controlled Cerebrocortical Indentation in Sheep
- B Stone, B Halkon, A Harland: An Explorative Study into the Mechanics of Projectile Impacts to the Head
- G Tierney, J Lawler, C Simms: Short communication: Upper and Lower Body Tackles in Rugby Union: the Effect on Head Kinematics
- S Khosroshahi, M Ghajari, U Galvanetto: Short communication: A Numerical Approach for the Optimisation of a Composite Chin Bar for Protection against Basilar Skull Fracture
- C Stuart, L Yau, R Yip, J Brubacher, P Crompton: Short communication: Understanding Clinical Snow Sport Head Injury and Design of a Relevant Helmet Testing Apparatus
- A Roseveare, D Plant, M Ghajari: Short communication: A New Helmet-liner Design for Improved Survivability

Session S1-10 - Spinal Injury (ctd.)

- J Broos, R Meijer: Simulation Method for Whiplash Injury Prediction Using an Active Human Model
- G Mattos, R Grzebieta: A Numerical Investigation of the Effects of Inverted Drop Test Methods on PMHS Spine Response
- D De Kegel, A Monea, F Dewinter, N Famaey, J Vander Sloten: Short communication: Investigation of a Local Absorption Energy Criterion for Skull Impacts through Subject-specific Finite Element Head Modelling
- B Elkin, G Siegmund: Short communication: A Potential Whiplash Mechanism for Cerebral Concussion
- C Young, J Tiernan, G Bertocci, C Simms: Short communication: A Model of a Wheelchair Head Restraint to Reduce the Risk of Whiplash
- R Lechner, I Hailer, S Horion, H Steffan: Short communication: Assessment of the Influencing parameters on the Kinematic Behaviour of the BioRID-II Anthropometric Test Device (ATD) by Analysing Seat Design Parameters Tested by the European New Car Assessment Programme (Euro NCAP)

Session S2-1 - Blast Injury

- J Boutillier, S De Mezzo, C Deck, L Ehrhardt, P Magnan, P Naz, R Willinger: Shock-wave interaction with reduced-scale simplified torso surrogates

- K Rafaels, A DiLeonardi, C Bass: Understanding the Brain Injury Mechanisms of Primary Blast Exposure
- R Pangonis, M Ghajari, D Sharp: Short communication: Characterisation of Brain Tissue at High Strain Rates
- E Vogel, C Bass, D Meaney, B Morrison: Short communication: Drug Treatment Prevents Primary Blast-induced Deficit in Long-term Potentiation in Rat Brain Slice Cultures
- G Grigoriadis, D Carpanen, A Bull, S Masouros: Short communication: A Finite Element Model of the Foot and Ankle for Prediction of Injury in Under-Body Blast

Session S2-2 - Vulnerable Road Users

- M Fahlstedt, P Halldin, V Alvarez, S Kleiven: Influence of the Body and Neck on Head Kinematics and Brain Injury Risk in Bicycle Accident Situations
- N Bourdet, S Mojumder, S Piantini, C Deck, M Pierini, R Willinge: Proposal of a new motorcycle helmet test method for tangential impact
- P Ghosh, C Mayer, C Deck, N Bourdet, F Meyer, R Willinger, H Bensler, J Weber: Head Injury Risk Assessment in Pedestrian Impacts on Small Electric Vehicles using Coupled SUFEHM-THUMS Human Body Models Running in Different Crash Codes
- D Perez-Rapela, J Forman, H Jeon, J Crandall: Short communication: External biofidelity of Flex-PLI compared to the THUMS pedestrian model
- L Meredith, C Hurren, E Clarke, M Fitzharris, M Baldock, L de Rome, J Olivier, J Brown: Short communication: Abrasion Resistance Performance of Clothing Worn by Australian Motorcyclists
- B Albanese, L Meredith, T Whyte, T Gibson, L de Rome, M Fitzharris, M Baldock, J Brown: Short communication: Energy Attenuation Performance of Impact Protection for Motorcyclists
- F Barry, C Simms: Short communication: Assessment of Head-Ground Impact Patterns in Real World Pedestrian-Vehicle Collisions

Session S2-3 - Computer Modelling / Human Body Models

- L Feller, C Kleinbach, J Fehr, S Schmitt: Incorporating Muscle Activation Dynamics into the Global Human Body Model
- Y Motozawa, M Okamoto, F Mori: Analysis of Quantitative Prediction of Rib-Fractures using Finite Element Human Body Models during Side Impacts
- L Wood Zaseck, C Chen, J Hu, M Reed, J Rupp: The Influence of Pre-Existing Rib Fractures on GHBM Thorax Response in Lateral Impact
- D Subit, F Möhler, J Wass, B Pipkorn: Robustness of Principal and Longitudinal Strains as Fracture Predictors in Side Impact
- T Du, J Chen, F Lan: Short communication: Development of the Chinese 50th Percentile Male Human Body Model
- J Osth, M Mendoza-Vazquez, M Svensson, A Linder, K Brodin: Short communication: Development of a 50th Percentile Female Human Body Model
- T Eliason, J Coogan, D Nicolella: Short communication: Hierarchical Verification and Validation of Human Body Computational Models
- S Boakye-Yiadom, D Cronin: Short communication: Repositioning Study for a Motion Segment: effect of Initial Rotation
- K Klein, M Reed, J Rupp: Short communication: Development of Geometric Specifications for the Pelvis of a Small Female Anthropomorphic Test Device

Session S2-4 - Accident Analysis / Vehicle Technology

- S Wang, S Holcombe, B Derstine, R Goulson, D Grenda, J Ruan, P Rabban, N Wang, J

Friedman, D Cron, B Henderson, J Sullivan, C Kohoyda-Inglis, G Su, S Ejima, P Zhang: Reference Analytic Morphomics Population (RAMP): A Reference to Measure Occupant Variability for Crash Injury Analysis

- L Gaylor, R Suarez del Fuego, M Junge: Crashworthiness Improvements of the Vehicle Fleet
- S Crespo, D Perez-Rapela, J Roman-Marin, F Martin-Vazquez, J Luzon-Narro, C Arregui-Dalmases: Structural Optimisation in Vehicle Development for the current Euro [NCAP](#) side crash protocol: how to minimise the structural changes due to the current barrier stiffness and geometry
- B Mueller, J Nolan: Comparison of Vehicle Structure and Occupant Responses in Driver- and Passenger-Side [IIHS Small Overlap](#) Frontal Crash Tests
- H Johannsen, R Thomson: Short communication: Compatibility Assessment: can the current ADAC MPDB test properly assess compatibility?

Session S2-5 - Side Impacts / Computer Modelling

- B Pipkorn, F Lopez-Valdes, O Juste-Lorente, M Maza, C Sunnevang: Study of the Kinematics of the THOR dummy in Nearside Oblique Impacts
- K Bohman, J Shaikh: Real Life Situations for Rear-Seated Occupants in Far-side Impacts
- J Peres, S Auer, N Praxl: Development and comparison of different injury risk functions predicting pelvic fractures in side impact for a Human Body Model
- M Katagiri, J Zhao, J Kerrigan, R Kent, J Forman: Comparison of Whole-Body Kinematic Behaviour of the GHBM Occupant Model to PMHS in Far-Side Sled Tests
- M Arun, S Umale, J Humm, N Yoganandan, F Pintar: Impact Response Evaluation of a Restrained Whole Human Body Finite Element Model under Far-side 90 and 60 degree Impacts
- D Gierczycka, S Malcolm, D Cronin: Short communication: Occupant-Side Airbag-Vehicle Interaction in Side-impact Crash Scenario Using Coupled Vehicle and Human Body Models
- D Gierczycka, S Malcolm, D Cronin: Short communication: Influence of the Rib-deflection Measurement Method on Evaluation of Side-impact Restraint Effectiveness

Session S2-6 - Vehicle Technology / Dummy Technology

- J Park, S Ebert, M Reed, J Hallman: Effects of Occupant and Vehicle Factors on Three-Point Belt Fit in Rear Seats
- R Grzebieta, G Rechnitzer, K Simmons, D Hicks: Rollover Crashworthiness of Quad Bikes and Side by Side Vehicles: A Comparative Laboratory Testing Study
- S Montesinos Acosta, J Ash, D Lessley, G Shaw, S Heltzel, J Crandall: Comparison of Whole Body Response in Oblique and Full Frontal Sled Tests
- K Klinich, C Flannagan, J Hu, M Reed: Potential Safety Effects of Low-Mass Vehicles with Comprehensive Crash Avoidance Technology
- T Seacrist, J Kerrigan, C Holt, S Balasubramanian, A Jordan, R Kent, K Arbogast: Short communication: A Novel Methodology for Evaluating Occupant Response in Low Acceleration Time-Extended Events
- L Martínez, M Reed, A García, M de Loma-Ossorio, C Torres, A Bueno: Short communication: Crash Impact Dummies adapted to People Affected by Osteogenesis Imperfecta

Session S2-7 - Vulnerable Road Users (ctd.)

- T Isshiki, A Konosu, Y Takahashi: Development and Evaluation of the Advanced Pedestrian Legform Impactor Prototype which can be Applicable to All Types of Vehicles Regardless of Bumper Height - Part 1: Finite Element Model
- T Isshiki, A Konosu, Y Takahashi: Development and Evaluation of the Advanced Pedestrian

Legform Impactor Prototype which can be Applicable to All Types of Vehicles Regardless of Bumper Height - Part 2: Actual Test Tool

- Y Takahashi, H Asanuma, I Imaizumi: Effectiveness of a Test Procedure for Pedestrian Lower Limb Protection in Pedestrians of Various Sizes
- V Alvarez, S Kleiven: Importance of Windscreen Modelling Approach for Head Injury Prediction

Session S2-8 - Accident Analysis / Injury Epidemiology (ctd.)

- C Mulligan, M Oomens, B Albanese, S Adams, J Brown: An In-Depth Investigation into Paediatric Motorcycle and Off-Road Vehicle Crashes
- S Piantini, M Pierini, M Delogu, N Baldanzini, A Franci, M Mangini, A Peris: Injury Analysis of Powered Two-Wheeler versus Other-Vehicle Urban Accidents
- M Maza, J Larriba, O Juste-Lorente, F Lopez-Valdes: Short communication: Motorcyclists Crashes into Race Tracks and Normal Road Barriers: Kinematic Analysis and Correlation with Test Procedures
- P Puthan, R Fredriksson, S Thorn, F Tornvall: Short communication: Real World Accident Analysis of Truck Front Impact to Pedestrians

Session S2-9 - Thorax Injury / Injury to the Upper Extremities

- S Ejima, S Holcombe, P Zhang, B Derstine, R Goulson, J Williams, C Kohoyda-Inglis, S Wang: Application of Analytic Morphomics for Belted Elderly Occupants in Frontal Crashes
- D Otte, T Facius, M Klintschar, S Brand: Investigations and Injury Mechanisms of Aortic Ruptures among Vehicle Occupants and Vulnerable Road Users over Time
- D Hynd, M Muirhead, J Carroll, A Barr, J Clissold: Evaluation of the Effectiveness of an Exemplar Equestrian Air Jacket against Crush Injuries
- W Wei, M Behr, C Kahn: Short communication: The Aorta-Heart System Finite Element Modelling with Fluid-Structure Interaction Methods and Validation against Blood Hydrodynamics
- J Toczyski, D Poulard, T Fuchs, S Peldschus, J Forman: Short communication: Lateral Bending Response Corridors for the 5th Rib of a 50th Percentile Male Finite Element Model
- D Carpanen, A Kedgley, D Plant, S Masouros: Short communication: The Risk of Injury of the Metacarpophalangeal and Interphalangeal Joints of the Hand

Session S2-10 - Thorax Injury / Tissue Biomechanics

- J Antona-Makoshi, Y Yamamoto, R Kato, S Kunitomi, A Konosu, Y Dokko, T Yasuki, T Takamiya: Effect of seatbelt and airbag loads on thoracic injury risk in frontal crashes considering average and small body sizes and age-dependent thoracic fragility
- A Agnew, Y-S Kang: Short communication: Human Rib Failure Strain in Dynamic Frontal Loading at the Antero-Lateral Location
- V Dominguez, Y-S Kang, M Murach, N Crowe, A Agnew: Short communication: Bone Area vs Cortical Area: Considering Intracortical Porosity When Predicting Rib Structural Properties
- M Murach, A Bazyk, E Misicka, Y-S Kang, K Moorhouse, A Agnew: Short communication: Utilization of a Novel Method for Measuring Cortical Thickness to Investigate Variation with Age in Male Human Ribs
- H Gustafson, P Cripton: Short communication: Use of Digital Image Correlation to Investigate the Influence of Rate on Vertebral Body Response
- P Kulavi, R Segura: Short communication: Towards Male Specific Material Properties for Cervical Ligaments in Finite Element Human Body Models and its Validation in Functional Spine Units

- B Nie, M Panzer, J Forman, A Mane, A Mait, J-P Donlon, R Kent: Short communication: A Fiber-based Modelling Approach of Ankle Ligaments in situ

9.-11. September 2015 - Lyon (France)

Bertil Aldman Memorial Lecture

- M Segui-Gomez: Trying to apply science to motor vehicle safety policy decision making

Keynote Lecture

- T Gennarelli: The Centripetal Theory of Concussion (CTC) revisited after 40 years and a proposed new Symptomcentric Concept of the Concussions

Sessions S1-1 / S1-2 / S1-7: Accident analysis / Injury epidemiology

- M Lindman, S Jonsson, L Jakobsson, T Karlsson, D Gustafson, A Fredriksson: Cyclists interacting with passenger cars; a study of real world crashes
- M Jansch, D Otte, H Johannsen: Investigation of bicycle accidents involving collisions with the opening door of parking vehicles and demands for a suitable driver assistance system
- R Fredriksson, B Sui: Fatal Powered Two-Wheeler (PTW) crashes in Germany - an in-depth study of the events, injuries and injury sources
- Z Hafiz Zulkipli, A Hamzah, S Mohammed, M Alwi Abdul Rahman: Short communication: Injury Pattern among Motorcyclists involved in Traffic Crashes
- S Piantini, N Baldanzini, M Pierini, M Mangini, A Franci, A Peris: An Overview on Pedestrians and Cyclists Serious Injuries in Urban Accidents
- C Klug, M Weinberger, E Tomasch, F Feist, W Sinz, H Steffan, T Kinsky, F Roth, N Praxl, B Buenger: Pelvic and femoral injuries in car-to-pedestrian accidents
- M Bhuvanesh, J Padmanaban, S Goldberger: Development of Accident Reconstruction Using In-Depth Accident Investigation Data in India
- H Subramanian, S Mukherjee, A Chawla, S Vakhil, M Varghese, D Mohan: Pedestrian Injuries in Delhi, India: Analysis of Hospital Data
- M Shafieian, V Rahimi-Movaghar: Short communication: What is the Real Number of Road Traffic Crashes in Iran? A Desperate Need for a Road Traffic Crash Registry System
- Z. Ahmad Noor Syukri, K. Wing, O. Mohd Rasid, S. Wong: Injury and Damage Severity Factors in Real-World Passenger Vehicles Frontal Impacts
- L Gaylor, M Junge: Assessment of the efficacy of vehicle side airbags: A matched cohort study of vehicle?vehicle side collisions using the GIDAS database
- L Jakobsson, M Lindman, H Carlsson, A Axelson, A Kling: Large Animal Crashes: the Significance and Challenges

Session S1-3: Vehicle Technology / Restraint Systems

- O Richard, J Uriot, X Trosseille, M Sokolowski: Occupant restraint optimisation in frontal crash to mitigate the risk of submarining in out-of-position situation
- E Rola, C Rzymkowski: Effectiveness of the Child Restraint System with a Special Airbag and Smart Seatbelt Pretensioner in Frontal Collisions
- S Meyer, A Nelson, D Hock, J McMillin, B Herbst: Assessing the Effects of Load Limiting Retractors on Occupant Motion
- B Nie, Xin Ye, P Riley, J Crandall, M Panzer: Short communication: Investigation of Active

Muscle Response on the Occupant-Knee Airbag Interaction in Frontal Impacts

- J Kim, I Lee, T Kim, H Kim: Short communication: Validation of Abdominal Characteristics under Lap-belt Loadings using Human Body Model Morphed to an Obese Female

Session S1-4: Brain / Head Injury / Helmets

- C Klug, F Feist, E Tomasch: Testing of bicycle helmets for preadolescents
- E Becker, D Anishchenko, S Palmer: Motorcycle Helmet Impact Response at Various Levels of Severity for Different Standard Certifications
- N Bourdet, R Willinger: Head impact conditions in case of equestrian accident
- J Clark, A Post, T Hoshizaki, M Gilchrist: Determining the Relationship between Linear and Rotational Acceleration and MPS for Different Magnitudes of Classified Brain Injury Risk in Ice Hockey
- G Tierney, T Krosshaug, F Wilson, K Denvir, T Wahl, M HaBayyari, M Carroll, C Simms: Short communication: An Assessment of a Novel Approach for Determining the Player Kinematics in Elite Rugby Union Players
- G Siegmund, S Bonin, J Luck, C Bass: Short communication: Validation of a Skin-Mounted Sensor for Measuring In-Vivo Head Impacts
- G Musigazi, D. De Kegel, J Vander Sloten, B Depreitere: Short communication: Brain Contusion Mechanopathogenesis: Arguments for Cortical Compression and Head Rotational Acceleration

Session S1-5: Brain / Head Injury / Tissue biomechanics

- D Sahoo, C Deck, R Willinger: Axonal strain as brain injury predictor based on real-world head trauma simulations
- B Stemper, A Shah, M Budde, R Chiariello, N Wilkins, C Olsen, P Mehta, S Kurpad, M McCrea, F Pintar: Characterization of Differing Time-Course of Cognitive Deficits and Emotional Changes Following Rotational Traumatic Brain Injury in the Rat
- W Zhao, S Ji: Parametric investigation of regional brain strain responses via a pre-computed atlas
- E Zapata, H Follet, D Mitton: Ex vivo protocol to reproduce a forward fall leading to fractured and non-fractured radii
- W Zhao, S Ji: Short communication: Feasibility of a pressure response superposition scheme in blunt head impact
- M Ghajari, D Sharp: Short communication: Computational Analysis of White Matter Response to Rear and Lateral Impacts
- K Bruyere, A Bel-Brunon, C Jayyosi, A Chenel, M Coret, C Kahn, C Masson: Short communication: Assessment of the ultimate strain of the hepatic capsule for the prediction of liver surface laceration

Session S1-6: Spinal Injury

- Y Kitagawa, K Yamada, H Motojima, T Yasuki: Consideration on Gender Difference of Whiplash Associated Disorder in Low Speed Rear Impact
- Y-S Kang, K Moorhouse, K Icke, J Stricklin, R Herriott, J Bolte IV: Rear Impact Head and Cervical Spine Kinematics of BioRID II and PMHS in Production Seats
- F Sato, T Nakajima, K Ono, M Svensson, K Kaneoka: Characteristics of Dynamic Cervical Vertebral Kinematics for Female and Male Volunteers in Low-speed Rear Impact, based on Quasi-static Neck Kinematics

Sessions S1-8 / S1-9 / S2-3: Vulnerable Road Users

- K Nakai, D Suzuki, S Enami, T Okino, J Takano, R Palacin: An estimation of behaviour and severity of injury to rail passengers occupying longitudinal seats in the event of collision
- D Suzuki, K Nakai, S Enami, T Okino, J Takano, R Palacin: Proposal of Simulation Method for Behaviour Analysis of Passengers on Longitudinal Seating in Railway Collision
- T Weber, M Muser, K-U Schmitt: Optimising the design of tramways to mitigate injury risk in pedestrian impacts
- P Vallee, T Robert: Short communication: A numerical model to assess the risk of fall in public transportation - application to the influence of the Jerk in emergency braking
- P Harrington, G Bertocci, C Simms: Short communication: Comparison of novel wheelchair occupant restraint with standard occupant restraints for occupants travelling in transportation
- D Subit, R Paas, B Sandoz, J Davidsson, S Laporte: Short communication: Upper Body Skeletal Posture of the Average Pedestrian Male from Upright High-Resolution X-ray Images - Comparison to the [THUMS](#) Pedestrian Model
- J Forman, H Joodaki, A Forghani, P Riley, V Bollapragada, D Lessley, B Overby, S Heltzel, J Crandall: Biofidelity Corridors for Whole-Body Pedestrian Impact with a Generic Buck
- A MacAlister, D Zubay: Cyclist Crash Scenarios and Factors Relevant to the Design of Cyclist Detection Systems
- N Lubbe, A Kullgren: Assessment of Integrated Pedestrian Protection Systems with Forward Collision Warning and Automated Emergency Braking
- G Li, J Yang, Simms C: Short communication: A Fitness Function for Vehicle Front Optimization for Pedestrian Protection Accounting for Real World Collision Configurations
- R Suarez del Fuego, M Junge, F Lopez-Valdes: Pedestrian Fatal Head Injury Risk as a Function of the Wrap Around Distance (WAD) and the Front Geometry of the Vehicle
- Y Takahashi, H Asanuma, T Yanaoka: Development of a Full-Body Human FE Model for Pedestrian Crash Reconstructions
- R Paas, J Osth, J Davidsson: Which Pragmatic Finite Element Human Body Model Scaling Technique Can Most Accurately Predict Head Impact Conditions in Pedestrian-Car Crashes?
- D Poulard, H Chen, J Crandall, T Dziewonski, M Pedzisz, M Panzer: Component-level Biofidelity Assessment of Morphed Pedestrian Finite Element Models
- P Beillas, P Petit, S Kleiven, S Kirscht, A Chawla, E Jolivet, F Faure, N Praxl, A Bhaskar: Short communication: Specifications of a Software Framework to Position and Personalise Human Body Models

Sessions S2-1 / S2-2: Dummy Technology / Rollover

- T Isshiki, A Konosu, Y Takahashi: Analysis of the Causes of Differences in Impact Responses between a Human Lower Limb and the Flexible Pedestrian Legform Impactor under Low and High Bumper Vehicle Impact Situations
- R Desbats, F Bermond, S Compigne, S Nicolle, P Vezin: Lumped element model of THOR-NT and PMHS abdomen under seatbelt and impactor loading
- J Uriot, P Potier, P Baudrit, X Trosseille, O Richard, R Douard: Comparison of HII, HIII and THOR dummy responses with respect to PMHS sled tests
- J Toczyski, D Lessley, Q Zhang, J Kerrigan: Short communication: Occupant Motion Tracking in Rollover using 3D Optical Systems
- H Joodaki, J Forman, A Forghani, B Overby, R Kent, J Crandall, B Beahlen, M Beebe, O Bostrom: Comparison of Kinematic Behaviour of a First Generation Obese Dummy and Obese PMHS in Frontal Sled Tests
- M Lebarbe, B Donnelly, P Petit, K Moorhouse: A Frontal Response Specification for Assessing the Biofidelity of an Anthropometric Test Dummy: Part 1 - Upper Body

- M Lebarbe, B Donnelly, P Petit, K Moorhouse: A Frontal Response Specification for Assessing the Biofidelity of an Anthropometric Test Dummy: Part 2 - Lower Body
- B Herbst, S Forrest, S Meyer, C Clarke, L Bell, A Nelson: Test Methods for Occupant Safety in Heavy Truck Rollovers
- D Gierczycka, D Cronin: Short communication: Investigation of Boundary Conditions for Vehicle Rollover Simulations

Sessions S2-4 / S2-5: Computer Modelling / Human Body Models

- St Ridella, C Bojanowski: Sensitivity Analysis on the Influence of Vehicle Factors on the Kinematic Response of a Mid-Sized Male Crash Dummy During a Simulation of a Controlled Rollover Crash
- M Davis, N Vavalle, F Gayzik: An evaluation of mass-normalization using 50th and 95th percentile human body finite element models in frontal crash
- M Arun, J Humm, N Yoganandan, F Pintar: Biofidelity Evaluation of a Restrained Whole Body Finite Element Model under Frontal Impact using Kinematics Data from PMHS Sled Tests
- D Poulard, H Chen, J Crandall, T Dziewonski, M Pedzisz, M Panzer: Comparison of Whole Body Kinematics between Fracture and Non-Fracture Finite Element Human Body Models during Side Impact
- S Schmitt, J Blaschke, P Bohm, C Mayer: Short communication: Active Muscles for the Implementation in Human Body Models - work in progress
- K Rawska, T Kim, V Bollapragada, B Nie, J Crandall, T Daniel: Evaluation of the Biofidelity of Multibody Paediatric Human Models under Component-level, Blunt Impact and Belt Loading Conditions
- M Shen, F Zhu, B Jiang, V Sanghavi, H Fan, Y Cai, Z Wang, A Kalra, X Jin, C Chou, K Yang: Development and a Limited Validation of a Whole-Body Finite Element Pedestrian and Occupant Models of a 10-Year-Old Child
- K Brolin, I Stockman, H Subramanian, L-L Gras, J Osth: Development of an Active 6-Year-Old Child Human Body Model for Simulation of Emergency Events
- M Reed, B-K Park, J Hallman: Effects of Driver Attributes on Lower Abdomen Contour
- D Gierczycka, D Cronin: Short communication: Investigation of Human Body Model Response to Different Lateral Loading Conditions

Sessions S2-6 / S2-7: Blast Injury

- J Boutillier, C Deck, P Magnan, R Willinger, P Naz: Primary blast injury on thorax: a critical review of the studies and their outcomes
- D Cronin: Short communication: Investigation of Lung Response Resulting from Behind Armour Blunt Trauma Impact Scenarios
- G Effgen, T Ong, S Nammalwar, A Ortuno, C Bass, D Meaney, B Morrison: Short communication: Primary Blast Exposure Reduces Brain Tolerance to Subsequent Blast
- E Vogel, C Bass, D Meaney, B Morrison: Short communication: Delayed inhibition of long-term potentiation in rat brain slice cultures caused by primary blast exposure
- D Singh, D Cronin: Short communication: Investigation of Head Response to Blast Exposure
- C Weaver, J Stitzel: Pelvic Response of a Total Human Body Finite Element Model During Simulated Under Body Blast Impacts
- A Christou, E Spurrier, G Grigoriadis, S Masouros: Short communication: Human cadaveric bi-segment impact experiments at different postures
- D Zaharie, S Masouros: Short communication: A multi-body dynamics model of the MiL-Lx surrogate for under-body blast
- C Villette, D Zaharie, A Phillips: Short communication: Frangible optimised lower limb surrogate for assessing injury caused by underbelly blast

- N Newell, A Bull, S Masouros: Short communication: A Computational Model for Prediction of Lower Limb Injury in Under-Vehicle Explosions

Session S2-8: Integrated Safety / Driver Behaviour

- H Johannsen, D Otte, M Urban: Pre-Crash Analysis of accidents Involving Turning Trucks and Bicyclists
- P Ghosh, M Andersson, M Mendoza Vazquez, M Svensson, C Mayer, J Wismans: A proposal for integrating pre-crash vehicle dynamics into occupant injury protection evaluation of small electric vehicles
- P Huber, S Kirschbichler, A Pruggler, T Steidl: Passenger kinematics in braking, lane change and oblique driving maneuvers
- L Jakobsson, M Lindman, M Bjorklund, T Victor: Rear-End Impact - Crash Prevention and Occupant Protection

10.-12. September 2014 - Berlin (Germany)

Bertil Aldman Memorial Lecture

- Arbogast K: A Public Health Priority For Only Ten Percent Of The Car Occupant Population: Why Focus On Children And How Are They Different Biomechanically?

Keynote Lecture

- Lorenz B: Interaction of Research, Legislation and Consumer Information

Session 1-1 - Accident analysis / Injury epidemiology 1

- Gockowiak K, Anderson R, Searson D: A model for determining injury risk on the basis of impact speed, using vehicle data from variable-speed impact tests
- Yanaoka T, Akiyama A, Takahashi Y: Investigation of Fatality Probability Function Associated with Injury Severity and Age
- Tahan F, Digges K, Kan C-D, Grzebieta R, Bambach M: Assessing Chest Injuries for Different Pitch Angles and Drop Heights Rollovers Using Strengthened Roof
- Svensson M, D'Addetta G A, Carlsson A, Ewald C, Luttenberger P, Mayer C, Strandroth J, Tomasch E, Gutsche A, Wismans J: Short communication: Future Accident Scenarios involving Small Electric Vehicles
- Arjun P, Arjun CT, Rajkamal S, Santhosh Kumar G, Hassan AM, Ravishankar R, Padmanaban J: Short communication: An In-Depth Study of Motorized Two-Wheeler Accidents in India

Session 1-2 - Brain / Head Injury / Helmets 1

- Walsh E, Kendall M, Hoshizaki T B, Gilchrist M: Dynamic Impact Response and Predicted Brain Tissue Deformation Comparisons for an Impacted Hybrid III Headform With and Without a Neckform and Torso Masses
- Ouckama R, Pearsall D: Projectile Impact Testing of Ice Hockey Helmets: Headform Kinematics and Dynamic Measurement of Localized Pressure Distribution
- Post A, Karton C, Hoshizaki T B, Gilchrist M: Analysis of the protective capacity of ice hockey helmets in a concussion injury reconstruction
- Oeur R A, Zanetti K, Hoshizaki T B: Angular Acceleration Responses of American Football, Lacrosse and Ice Hockey Helmets Subject to Low?Energy Impacts

Session 1-3 - Brain / Head Injury / Helmets 2

- Ren L, Baumgartner D, Davidsson J, Yang J, Willinger R: Effect of inhomogeneous brain mechanical characteristics on dynamic responses of head under trauma
- Sahoo D, Deck C, Yoganandan N, Willinger R: Composite FE human skull model validation and development of skull fracture criteria
- Ito D, Yamada H, Oida K, Mizuno K: Finite element analysis of kinematic behavior of cyclist and Performance of cyclist helmet for human head injury in vehicle-to-cyclist collision
- Boruah S, Subit D, Crandall J, Salzar R, Shender B, Paskoff G: A lumped-mass model to simulate through-the-thickness transmission of vibration in the adult human skull

Session 1-4 - Tissue Biomechanics / Tissue Characterization 1

- Lopez-Valdes F, Lau S, Riley P, Kent R: Characterizing the in-vitro dynamic behavior of the human thoracic spine in flexion
- Shridharani J, Schmidt A, Cox C, Bigler B, Knight A, Bass C: Dynamic Failure Localization in Spinal Specimens using Acoustic Emissions
- Van Toen C, Street J, Oxland T, Cripton P: Acoustic Emission Signals from Injuries of Three-Vertebra Specimens

Session 2-1 - Lower Extremity Injury

- Perry B, Gabler L, Bailey A, Henderson K, Brozoski F, Salzar R: Lower Leg Characterization and Injury Mitigation
- Ye X, Panzer M, Shaw G, Crandall J: Driver Lower Extremity Response to Out of Position Knee Airbag Deployment
- Bailey A, Panzer M, Salzar R: Development of a Transfer Function for Interpreting Hybrid-III Lower Leg Data from Axial Loading
- Reed M, Ebert S, Hallman J: Short communication: A Statistical Analysis of Driver Knee Locations Relative to Vehicle, Occupant and Belt Fit Variables
- Riley P, Kent R, Dierks T, Liewers W B, Frimenko R, Crandall J: Short communication: Stiffness of the First MTP Joint in Athletic Activities

Session 2-2 - Spinal Injury

- Sato F, Nakajima T, Ono K, Svensson M, Brodin K, Kaneoka K: Dynamic Cervical Vertebral Motion of Female and Male Volunteers and Analysis of its Interaction with Head/Neck/Torso Behavior during Low-speed Rear Impact
- Gutsche A, Tomasch E, Darok M, Sinz W, Ciglaric I, Ravnik D, Steffan H: Comparison of the cervical spine bony kinematics for female cadavers versus the virtual EvaRID dummy under whiplash loading
- Kang Y-S, Moorhouse K, Icke K, Herriott R, Bolte J: Head and Cervical Spine Responses of Post Mortem Human Subjects in Moderate Speed Rear Impacts
- Zulkipli Z, Mao H, Yang K: Short presentation: Study of Neck Geometry Effects on Whiplash Injury Using Finite Elements Method
- Newell R, Cripton P, Blouin J-S, Street J, Siegmund G: Short communication: The neutral posture of the cervical spine is not unique

Session 2-3 - Dummy Technology 1

- Stammen J, Donnelly B, Suntay B, Moorhouse K: Dynamic Response Criteria for a Large Child ATD Thoracic Spine

- Donnelly B, Moorhouse K, Rhule H, Stammen J: Using Absorbed Energy to Normalize PMHS Response Data and Develop Biofidelity Targets for Dummy Design
- Carroll J, Seidl M, Waagmeester K, Lemmen P, Burleigh M, Koschdon K, Lakshminarayana A, Schnottale B, Eggers A, Visvikis C: Side impact shoulder for the Q10 dummy - design and evaluation
- Beillas P, Soni A, Chevalier M-C, Johannsen H, Mueller G, Holtz J: Q6 dummy thoracic response and diagonal belt interactions: observations based on dummy testing and human and dummy simulations

Session 2-4 – Dummy Technology 2

- Eggers A, Eickhoff B, Dobberstein J, Zellmer H, Adolph T: Effects of variations in buckle position, double pretension and adaptive load limiting on advanced chest measurements of THOR and Hybrid III
- Davidsson J, Carroll J, Hynd D, Lecuyer E, Song E, Trosseille X, Eggers A, Sunnevang C, Praxl N, Martinez L, Lemmen P, Been B: Development of injury risk functions for use with the THORAX Demonstrator; an updated THOR
- Sunnevang C, Hynd D, Carroll J, Dahlgren M: Comparison of the THORAX Demonstrator and HIII sensitivity to crash severity and occupant restraint variation

Session 1-5 - Tissue Biomechanics / Tissue Characterization 2

- Holcombe S, Wang S: Subcutaneous Fat Distribution in the Human Torso
- Agnew A, Moorhouse K, Murach M, White S, Kang Y-S: Ultimate bending stress in human ribs throughout the lifespan
- Kilroy H, Takaza M, Simms C: Short communication: The influence of sample dimension on apparent dynamic stress strain behaviour in passive skeletal muscle
- Karunaratne A, Bull A: Short communication: The structure-function relationships of human cortical bone are strain rate dependent: Insight from synchrotron X-ray imaging combined with micromechanical testing
- Soicher J, Streijger F, Kwon B, Cripton P: Short communication: Quantifying Spinal Cord Swelling using Fiber Optic Pressure Sensors

Session 1-6 - Accident Analysis / Injury Epidemiology 2

- Subramanian H, Mukherjee S, Chawla A, Goehlich D: Methodology for estimation of probable location of VRU before impact using data from post-crash analysis
- Gogate V, Pachore V, Thorat A: A new approach for rear underrun protection systems - accident investigations & CAE based development
- Schmitt K-U, Baumgartner L, Muser M, Furter K, Scholz S, Lueber B, Thomas P, Simma A: Short communication: Developing a scheme to report AIS-coded injury severity for Swiss traffic accident data
- Wang S, Holcombe S, Kohoyda-Inglis C, MacWilliams J, Zhang P, Pal C, Kawabe Y, Combet J, Ootani R, Okabe T: Short communication: Calibration of Injury Severity Prediction Algorithm for Nissan Vehicles
- Werneke J, Dozza M: Short communication: Integrating Road Safety Data for Single-Bicycle Crash Causation

Session 1-7 - Computer Modelling / Human Body Models 1

- Iwamoto M, Nakahira Y: A Preliminary Study to Investigate Muscular Effects for Pedestrian Kinematics and Injuries Using Active [THUMS](#)

- Davis M, Allen B, Geer C, Stitzel J, Gayzik, F: A Multi-Modality Image Set for the Development of a 5th Percentile Female Finite Element Model
- Pronoy G, Swain G, Chitteti R, Shah P, Mayer C, Gopalakrishna H: Short communication: Deriving anthropometrically-correct 5th percentile female from subject-specific female CAD model
- Grigoriadis G, Newell N, Masouros S, Bull A: Short communication: The material properties of the human heel fat pad across strain-rates: an inverse finite element approach

Session 1-8 - Computer Modelling / Human Body Models 2

- Park G, Kim T, Subit D, Donlon J, Crandall J, Svenderson A, Saunders N, Markusic C: Assessment of GHBM shoulder biofidelity in lateral shoulder impact condition using PMHS response
- Gierczycka D, Cronin D: Short communication: Investigation of Injury Metric Sensitivity to Thorax Impact Loading Using a Detailed Human Body Model
- Fuchs T, Fressmann D, Mayer C, Pipkorn B, Segura R, Weber J, Yasuki T, Peldschus S: Short communication: Challenges in Using a Finite Element Human Body Model in Different Crash Codes

Session 2-5 - Impact biomechanics modeling

- Dzialak P, Ptak M, Karlinski J, Iluk A: Injury biomechanics of a mining machine operator
- Rhule H, Suntay B, Herriott R, Stricklin J, Kang Y-S, Bolte J: Response of the PMHS Thorax in Lateral and Oblique Pneumatic Ram Impacts - Investigation of Impact Speed, Impact Location and Impactor Face
- Mendoza-Vazquez M, Jakobsson L, Davidsson J, Brodin K, Ostmann M: Evaluation of thoracic injury criteria for THUMS finite element human body model using real-world accident data
- Yoganandan N, Arun M, Humm J, Pintar F: Short communication: Evaluation of normalization approaches for developing temporal corridors in oblique side impacts

Session 2-6 - Vehicle Technology / Restraint Systems

- Adolph T, Eggers A, Thomson R, Mizuno K: Comparison of the Dummy Response in two different Restraint System Crash Tests
- Stein M, Johannsen H, Holtz J, Core E, Zink L: Concept for lateral impact protection of a centred driver in a light electrical vehicle
- Sun Y, Xu J, Zhao C, Li P, Li Y: Exploring a new candidate of energy absorber: thin-wall tube structures filled with nanoporous material functionalized liquid
- Lorente O, Alba J, Lopez-Valdes F: A comparison of the performance of child restraint systems on the [ECE R44](#) bench and vehicle seats
- Rola E: Short communication: Analysis of the applicability of an airbag for safety improvement of the child travelling in the child restraint system in rear seat of a passenger car during the frontal crash

Session 2-7 - Integrated Safety / Driver Behaviour 1

- Fredriksson R, Rosen E: Integrated Vulnerable Road User Protection Systems - Potential of Head Injury Reduction Combining Passive and Active Protection Systems
- Kirschbichler S, Huber P, Prueggler A, Steidl T, Sinz W, Mayer C, D'Addetta G A: Factors Influencing Occupant Kinematics during Braking and Lane Change Maneuvers in a Passenger Vehicle
- Bollapragada V, Kim T, Kerrigan J, Crandall J, Clauser M: Influence of driving attributes on the

rollover propensity of a Sedan in case of corrective maneuvers

Session 2-8 - Integrated Safety / Driver Behaviour 2

- Kirscht A, Mueller G, Johannsen H, Goede W, Marker S: Observation of front seat passenger posture and motion in driving manoeuvres
- Rizzi M, Kullgren A, Tingvall C: The injury crash reduction of low-speed Autonomous Emergency Braking ([AEB](#)) on passenger cars
- Jastrzebski D, Miroslaw M, Dziawonski T: Short communication: ATD model vs Human model in combined frontal pre-braking and lateral impact applications
- Huber P, Kirschbichler S, Prueggler A, Steidl T: Short communication: Three-Dimensional Occupant Kinematics During Frontal, Lateral and Combined Emergency Maneuvers

Session 1-9 - Vulnerable Road Users 1

- Katsuhara T, Miyazaki H, Kitagawa Y, Yasuki T: Impact Kinematics of Cyclist and Head Injury Mechanism in Car to Bicycle Collision
- Bourdet N, Luttenberger P, Teibinger A, Mayer C, Willinger R: Pedestrian and bicyclists head impact conditions against small electric vehicle
- Malczyk A, Bauer K, Juhra C, Schick S / corrected version: Head injuries in bicyclists and associated crash characteristics
- Coulongeat F, Roth F, Schenk T, Seibert D: Short communication: Simulation of a real accident with a pedestrian using a FE human model: potential from the view of Integrated Safety
- Meredith L, Baldock M, Fitzharris M, Brown J: Short communication: Pelvic Injury Mechanisms among Motorcyclists
- Li G, Yang J, Simms C: Short communication: Predicting the Effects of Pedestrian Gait on Lower Limb Injuries

Session 1-10 - Vulnerable Road Users 2

- Pipkorn B, Forsberg C, Takahashi Y, Ikeda M, Fredriksson R, Svensson C, Thesleff A: Development, Validation and Manufacturing of a Generic Vehicle Front Buck for Pedestrian impact evaluation
- Takahashi Y, Ikeda M, Asanuma H, Svensson C, Pipkorn B, Forsberg C, Fredriksson R: Full-scale Validation of a Generic Buck for Pedestrian Impact Simulation
- Hamdane H, Serre T, Anderson R, Masson C Yerpez J: Description of pedestrian crashes in accordance with characteristics of Active Safety Systems
- Isshiki T, Konosu A, Takahashi Y: Development of an Appropriate Pedestrian Legform Impact Test Method which can be used for all Types of Vehicles including High Bumper Vehicles - Development of a Simplified Upper Body Part (SUBP) FE Model

Session 2-9 - Blast injury

- Alai A, Salzar R: Measurement of Force in IED Vehicle Interactions
- Gabler L, Panzer M, Salzar R: High-Rate Mechanical Properties of Human and Hybrid-III Heel Pad for Simulation of a Blast Loading Condition
- Iluk A: Estimation of spine injury risk as a function of bulletproof vest mass in case of Under Body Blast load
- Vogel E, Villacorta J, Bass C, Meaney D, Morrison B: Short communication: Primary blast injury erases long term potentiation in rat brain organotypic hippocampal slices
- Jin X, Begeman P, Zhu F, Zhao H, Chen C, Tannous R, Yang K: Short communication:

11.-13. September 2013 - Gothenburg (Sweden)

Bertil Aldman Memorial Lecture

- Murray Mackay: IRCOBI – Past, Present and Future

Session 1-1 - Accident Analysis 1

- Tingvall C, Ifver J, Krafft M, Kullgren A, Lie A, Rizzi M, Sternlund S, Stigson H, Strandroth J: The Consequences of Adopting a [MAIS](#) 3 Injury Target for Road Safety in the EU: a Comparison with Targets Based on Fatalities and Long-term Consequences
- Thomas P: Developments in the Risk of Crash Involvement and Injury to Car Occupants by Model Year Using Vehicle Specific Exposure Data
- Kuniyuki H: Comparison of an Injury Prediction Algorithm for Japan and the U.S. Using Field Accident Data
- Rameshkrishnan N, Sathyakumar A, Balakumar S, Hassan A M, Rajaraman R, Padmanaban J: The New In-Depth, At-the-Scene, Accident Investigation Database in India

Session 1-2 - Spinal Injury 1

- Kullgren A, Stigson H, Krafft M: Development of Whiplash Associated Disorders for Male and Female Car Occupants in Cars Launched Since the 80s in Different Impact Directions
- Davidsson J, Kullgren A: Evaluation of Seat Performance Criteria for Rear-End Impact Testing BioRID II and Insurance Data
- Gutsche A, Tomasch E, Sinz W, Levallois I, Alonso S, Lemmen P, Linder A, Steffan H: Improve Assessment and Enhance Safety for the Evaluation of Whiplash Protection Systems Addressing Male and Female Occupants in Different Seat Configurations by Introducing Virtual Methods in Consumer Tests
- Adolph T, Wisch M, Eggers A, Johannsen H, Cuerden R, Carroll J, Hynd D, Sander U: Analyses of Thoracic and Lumbar Spine Injuries in Frontal Impacts

Session 1-3 - Spinal Injury 2 / Tissue Characterization 1

- Aulck L, Johnson P, Ching R: Ex Vivo Biomechanics of Bus Driver Whole Body Vibration Exposures in the Lumbar Spine
- Zhang J Y, Merkle A, Carneal C, Armiger R, Kraft R, Ward E, Ott K, Wickwire A, Dooley C, Harrigan T, Roberts J: Effects of Torso-Borne Mass and Loading Severity on Early Response of the Lumbar Spine under High-Rate Vertical Loading
- Howes M, Hardy W: Dynamic Material Properties of the Post-Mortem Human Colon
- Arun M, Mukherjee S, Chawla A, Sharma G, Shah P, Ageorges C: Short communication: Characterization of Human Long Bones Using Experiments, Imaging and Inverse Finite Element Techniques
- Bonner T, Newell N, Pullen A, Amis A, Bull A, Masouros S: Short communication: Sensitivity of the Material Properties of the Lateral Collateral Ligament of the Porcine Stifle Joint to Strain Rate

Session 1-4 - Lower Extremity Injury / Blast Injury

- Newell N, Masouros S, Bull A: A Comparison of MiL-Lx and Hybrid-III Responses in Seated and Standing Postures with Blast Mats in Simulated Under-Vehicle Explosions

- Henderson K, Bailey A, Christopher J, Brozoski F, Salzar R: Biomechanical Response of the Lower Leg under High Rate Loading
- Bailey A, Christopher J, Henderson K, Brozoski F, Salzar R: Comparison of Hybrid-III and PMHS Response to Simulated Underbody Blast Loading Conditions
- Rafaels K, Gillich P, Ehlers R, Duvall P: Lower Leg Injuries in Dismounted Military Personnel from Buried Explosives

Session 2-1 - Advances In Dummy Technology

- Arbogast K, Locey C, Bohman K, Seacrist T: Relative Kinematics of the Shoulder Belt and the Torso: Comparison of the Q10 ATD and Pediatric Human Volunteers
- Boucher L, Chaudhari A, Kang Y-S, Bolte J: Range of Motion and Stiffness of the Pediatric Ankle and Implications for Current ATDs
- Lebarbé M, Lafont D, Uriot J, Potier P, Baudrit P, Vallencien G: Study of the Shoulder Response to a High Speed – Short Displacement Lateral Impact using Post Mortem Human Subjects and ES-2re dummy
- Davidsson J: Volunteer Shoulder Range of Motion and Stiffness: Data for Evaluation of Crash Test Dummies and Human Body Models

Session 2-2 - Thorax Injury 1

- Perz R, Toczyski J, Kindig M, Ito D, Ejima S, Kamiji K, Yasuki T, Crandall J, Subit D: Evaluation of the Geometrical Properties Distribution Along the Human Ribs Using Different X-Ray Imaging Methods
- Agnew A, Kang Y-S, Moorhouse K, Herriott R, Bolte J: Age-Related Changes in Stiffness in Human Ribs
- Sandoz B, Sidelkeir Z, Badina A, Bermond F, Mitton D, Skalli W: Variability of Child Rib Bone Hounsfield Units using in vivo Computed Tomography
- Segura R, Fuerst F, Wagner, A, Peldschus S: Short presentation: Towards a more Realistic Human Model Crash Simulation with Real Sternal Cortical Thickness based on Micro-CT Scans
- Iluk A: Short communication: Influence of the additional inertial load of the torso on the mine blast injury

Session 2-3 - Thorax Injury 2

- Kitagawa Y, Yasuki T: Correlation among Seatbelt Load, Chest Deflection, Rib Fracture and Internal Organ Strain in Frontal Collisions with Human Body Finite Element Models
- Ito Y, Motozawa Y, Mori F: Response Analysis of Thoracic Cage against Blunt Loading using Human FE Model
- Mallory A, Rhule H: Short communication: Injury Risk Estimates: A Method for Determining Equivalent Increase in Risk of Death for Older and Younger Occupants
- Schmitt K-U, Ade N, Stämpfli R: Short communication: Airbag vests in equestrian sports – assessing the protective potential

Session 2-4 - Analysis Of Impact Scenarios

- Zhang Q, Kerrigan J, Lessley D, Seppi J, Riley P, Foltz P, Lockerby J, Overby B, Sowers C, Crandall J: Whole-body Kinematics: Response Comparison of the Hybrid III and Hybrid III Pedestrian ATD in DRoTS Rollover Tests
- Park G, Kim T, Crandall J, Arregui-Dalmases C, Luzon-Narro J: Comparison of Kinematics of GHBM to PMHS on the Side Impact Condition
- Scheub J, Tahan F, Digges K, Kan C-D: Influence of Different Platen Angles and Selected Roof

Header Reinforcements on the Quasi-Static Roof Strength of a 2003 Ford Explorer FE Model

- Brumbelow M, Farmer C: Short communication: Real-World Injury Patterns Associated with Hybrid III Sternal Deflections in Frontal Crash Tests
- Gierczycka-Zbrozek D, Cronin D: Short Communication: Evaluation of Injuries in Offset Frontal Pole Impacts

Session 3-1 - Head Injury And Helmets

- Lopez-Valdes F, Juste Lorente O, Alba J: Preventing Pediatric Out-of-Position in Frontal Crashes: Impact Assessment of a Head Support System
- Rizzi M, Stigson H, Krafft M: Cyclist Injuries Leading to Permanent Medical Impairment in Sweden and the Effect of Bicycle Helmets
- Velani N, Harland A, Halkon B: The Development of a Test Methodology for the Determination of Cricket Batting Helmet Performance when Subjected to Ballistic Impacts
- Fernandes F, Alves de Sousa R, Willinger R, Deck C: Finite Element Analysis of Helmeted Impacts and Head Injury Evaluation with a Commercial Road Helmet
- Mallory A, Duffy S, Rhule H: Short communication: Head Injuries to Helmeted and Unhelmeted Motorcyclists in US Trauma Data

Session 3-2 - Brain Injury 1

- Yanaoka T, Dokko Y: A Parametric Study of Age-Related Factors Affecting Intracranial Responses under Impact Loading Using a Human Head/Brain FE Model
- Lamy M, Baumgartner D, Davidsson J, Willinger R: Traumatic Brain Injury Investigation Using FE Modeling of the Rat and Experimental High Amplitude Rotations in the Sagittal Plane
- Gabler L, Stone J, Mourad P, Crandall J, Salzar R: Region Specific Viscoelastic Properties of the Adult Rat Brain under Indentation following Traumatic Brain Injury
- Klug C, Sinz W, Brenn G, Feist F: Experimental Sphere-in-Sphere Testing for the Validation of a Numerical Cerebrospinal Fluid Model
- Boruah S, Henderson K, Subit D, Salzar R, Shender B, Paskoff G: Response of Human Skull Bone to Dynamic Compressive Loading
- Antona-Makoshi J, Davidsson J, Ejima S, Ono K, Brodin K, Anata K: Correlation of Global Head and Brain Tissue Injury Criteria to Experimental Concussion derived from Monkey Head Trauma Experiments

Keynote Lecture

- T. Krosshaug: Video analysis of ACL injuries in sports - 3D reconstruction of human motion from regular TV image sequences

Session 3-3 - Brain Injury 2 / Sports Injury

- Zanetti K, Post A, Kartan C, Kendall M, Hoshizaki T B, Gilchrist M: Identifying Injury Characteristics for Three Player Positions in American Football Using Physical and Finite Element Modeling Reconstructions
- Kendall M, Post A, Zanetti K, Hoshizaki T B, Gilchrist M: Comparison of Dynamic versus Static Head Impact Reconstruction Methodology by Means of Dynamic Impact Response and Brain Deformation Metrics
- Allison M, Maltese M, Arbogast K: Short communication: Sensitivity of a Finite Element Head Model to Error in Head Acceleration Profiles as Measured by a Helmet-Based Accelerometer System for Ice Hockey
- Allison M, Maltese M, Arbogast K: Short communication: Kinematics of Anterior Cruciate

Session 3-4 - Tissue Characterization 2

- Wood G, Panzer M, Yu A, Rafaels K, Matthews K, Bass C: Scaling in Blast Neurotrauma
- Hue C, Bass C, Meaney D, Morrison B: Short communication: Interval-Specific, Blood-Brain Barrier Disruption In Vitro After Repetitive Primary Blast Injury
- Vogel E, Effgen G, Bass C, Meaney D, Morrison B: Short communication: Primary blast injury initiates functional differences in rat brain organotypic hippocampal slices
- Hemphill M, Goss J, Parker K: Short communication: An in vitro Magnetic Twisting Cytometry Model for Studying the Role of Specific Cell Adhesion Molecules in Traumatic Brain Injury
- Effgen G, Vogel E, Lynch K, Morrison B: Short communication: In Vitro Primary Blast Injury Induces Cell Death in the Hippocampus

Session 4-1 - Impact Biomechanics Modelling

- Sahoo D, Deck C, Willinger R: Medical Imaging Data Implementation into Human FE Head Modelling and Validation
- Meijer R, Broos J, Elrofai H, de Bruijn E, Forbes P, Happee R: Modelling of Bracing in a Multi-Body Active Human Model
- Motozawa Y, Ito Y, Mori F: Applicability of Theoretical Optimal Pulse to the Thoracic Response of the Human Body Finite Element Model during Frontal Impact
- Reed M, Hu J, Rupp J: Short communication: Statistical Analysis of Body Shapes for Parametric Human Body Modeling

Session 4-2 - Active Safety And Driver Behaviour

- Ólafsdóttir J, Östh J, Davidsson J, Brolin K: Passenger Kinematics and Muscle Responses in Autonomous Braking Events with Standard and Reversible Pre-tensioned Restraints
- Rosén E: Autonomous Emergency Braking ([AEBS](#)) for Vulnerable Road Users
- Huber P, Christova M, D'Addetta G A, Gallasch E, Kirschbichler S, Mayer C, Prüggl A, Rieser A, Sinz W, Wallner D: Muscle Activation Onset Latencies and Amplitudes during Lane Change in a Full Vehicle Test
- Morris A, Reed S, Welsh R, Brown L, Birrell S: Studying the Effects of In-vehicle Information Systems on Driver Visual Behaviour – Implications for Design
- Weber T, Florin A, Muser M, Schmitt K-U: Short communication: Evaluating the influence of a head-up display on driver's behaviour
- Petersson M, Svanberg B, Johansson R: Short communication: Driver Reaction for Evaluating Autonomous Interventions – A Test-Track Method
- Broberg T, Dukic T, Jakobsson L: Short communication: Driving Scenarios and Factors affecting Safe Mobility for Older Drivers

Session 4-3 - Spinal Injury 3

- Luck J, Nightingale R, Bass C: Compressive Mechanical Properties of the Perinatal, Neonatal and Pediatric Cervical Spine
- Dong L, Mao H, Li G, Yang K: The Ten-Year-Old Child Neck Failure in Tension Using A Finite Element Model
- Yoganandan N, Pintar F, Lew S, Rao R: Short communication: Geometrical properties of the pediatric cervical spine with a focus on C1 vertebra from birth to 18 years: applications to age-specific human body computational models

Session 4-4 - Accident Analysis 2

- Parenteau C, Zhang P, Holcombe S, Kohoyda-Inglis C, Wang S: Analysis of Morphometrics Parameters by Gender and BMI Groups: Thorax Shape and H-point Location
- Stadter G, Yoganandan N, Halloway D, Pintar F: Analysis of Nearside Narrow Object Impacts with and without Shoulder Injuries in Real-World Crashes
- Cabroler L, D'Souza R, Bertocci G, Tiernan J, Simms C: The Influence of Shoulder and Pelvic Belt Floor Anchorage Location on Wheelchair Occupant Injury Risk: a simulation study

Session 5-1 - Tissue Characterization 3

- Umale S, Deck C, Bourdet N, Diana M, Soler L, Willinger R: Modeling and Validation of the Human Liver and Kidney Models
- Sato F, Yamamoto Y, Ito D, Antona-Makoshi J, Ejima S, Kamiji K, Yasuki T: Hyper-viscoelastic Response of Perfused Liver under Dynamic Compression and Estimation of Tissue Strain Thresholds with a Liver Finite Element Model
- Untaroiu C, Lu Y-C, Kemper A: Modeling the Biomechanical and Injury Response of Human Liver Parenchyma under Tensile Loading
- Subit D, Arregui C, Salzar R, Crandall J: Pediatric, Adult and Elderly Bone Material Properties
- Hamzah M, Subit D, Boruah S, Forman J, Crandall J, Ito D, Ejima S, Kamiji K, Yasuki T: An Inverse Finite Element Approach for Estimating the Fiber Orientations in Intercostal Muscles
- Cronin D, Simms C: Short communication: Investigation of Anisotropy in Passive Muscle Tissue

Session 5-2 - Vulnerable Road Users

- Milne G, Deck C, Bourdet N, Allinne Q, Gallego A, Carreira R, Willinger R: Assessment of Bicyclist Head Injury Risk under Tangential Impact Conditions
- Alvarez V, Fahlstedt M, Halldin P, Kleiven S: Importance of Neck Muscle Tonus in Head Kinematics during Pedestrian Accidents
- Soni A, Robert T, Beillas P: Effects of Pedestrian Pre-Crash Reactions on Crash Outcomes during Multi-body Simulations
- Takahashi Y, Imaizumi I, Asanuma H, Ikeda M: Responses of the Flexible Legform Impactor in Car Impacts
- Simms C: Short communication: Windscreen Angle: a factor for pedestrian head injury risk
- Ptak M, Karlinski J: Short communication: Numerical Investigation of the Frontal Protection System for Pedestrian Safety Enhancement
- Cheong V S, Masouros S, Bull A: Short communication: Fracture Simulation of Femoral Bone using Finite Element Method

Session 6-1 - Frontal Impacts

- Tahan F, Park C-K, Morgan R, Cui C, Brar B, Shanks K, Kan C-D: The Effect of Reduced Mass on Frontal Crashworthiness
- Parenteau C, Zuby D, Brolin K, Svensson M, Palmertz C, Wang S: Restrained Male and Female Occupants in Frontal Crashes: Are We Different?
- Reichert R, Morgan R, Park C-K, Digges K, Kan C-D: Thoracic and Abdominal Injuries to Drivers in Between-rail Frontal Crashes
- Ito D, Ejima S, Kitajima S, Katoh R, Ito H, Sakane M, Nishino T, Nakayama K, Ato T, Kimura T: Occupant Kinematic Behavior and Effects of a Motorized Seatbelt on Occupant Restraint of Human Volunteers during Low Speed Frontal Impact: Mini-sled Tests with Mass Production Car Seat

- Malczyk A, Müller I, Essers S, Hänsel M: Effects of Seating Position of Short Stature Drivers in Frontal Impacts
- Donnelly B, Moorhouse K, Stammen J, Rhule H: Short communication: A Methodology for Creating PMHS Targets with a Two-Dimensional Standard Deviation Ellipse Tolerance for Quantitatively assessing Dummy Biofidelity

Session 6-2 - Accident Analysis 3

- Tohira H, Jacobs I, Mountain D, Gibson N, Yeo A: Comparison of Tables that Map the Abbreviated Injury Scale 1998 Version to the 2008 Version
- Carlsson A, Strandroth J, Bohman K, Stockman I, Svensson M, Wenäll J, Gummesson M, Turbell T, Jakobsson L: Review of Child Car Occupant Fatalities in Sweden During Six Decades
- Osvalder A-L, Hansson I, Stockman I, Carlsson A, Bohman K, Jakobsson L: Older Children's Sitting Postures, Behaviour and Comfort Experience during Ride - A Comparison between an Integrated Booster Cushion and a High-Back Booster
- Sankarasubramanian H, Mukherjee S, Chawla A, Göhlich D: A Method to Compare and Quantify Threat to Pedestrian Using Injury Cost Measure

12.-14. September 2012 - Dublin (Ireland)

Bertil Aldman Memorial Lecture

- David Ward: From Research to Global Policy and Action

Session 1-1 - Accident Analysis 1

- Tohira H, Jacobs I, Mountain D, Gibson N, Yeo A: Differences in risk factors between early and late trauma death after road traffic accidents
- Piantini S, Grassi D, Mangini M, Pierini M, Spina R, Peris A: A Pilot Study of an Integrated Accident Research System Based on a Medical and Engineering Data in the Metropolitan Area of Florence
- Ono K, Takayama S, Mikami K, Ejima S, Mashiko K, Kono M, Ohashi H: Advanced Accident Research System with the Medical and Engineering Network in Japan
- Hafiz Zulkipli Z, Mohd Faudzi S A, Mohamed N: Spine Injuries among Fatal Victims of Vehicular Accidents in Kuala Lumpur, Malaysia

Session 1-2 - Accident Analysis 2

- Ridella S, Rupp J, Poland K: Age-Related Differences in [AIS](#) 3+ Crash Injury Risk, Types, Causation and Mechanisms
- Foster J, Kerrigan J, Nightingale R, Funk J, Cormier J, Bose D, Sochor M, Ridella S, Ash J, Crandall J: Analysis of Cervical Spine Injuries and Mechanisms for [CIREN](#) Rollover Crashes
- Padmanaban J, Fitzgerald M: Effectiveness of Rollover-Activated Side Curtain Airbags in Reducing Fatalities in Rollovers
- Malczyk A, Müller G, Gehler T: The Increasing Role of SUVs in Crash Involvement in Germany
- Ptak M, Karliński J: Pedestrian Passive Safety During the SUV Impact: Regulations vs. Reality

Session 1-3 - Frontal / Pole Impacts 1

- Hynd D, Carroll J, Cuerden R, Kruse D, Boström O: Restraint System Safety Diversity in Frontal Impact Accidents
- Yoganandan N, Pintar F, Moore J, Schlick M, Humm J, Rinaldi J, Maiman D: Sled tests using

the THOR-NT device and post mortem human surrogates in frontal impacts

- Ash J, Lessley D, Forman J, Zhang Q, Shaw G, Crandall J: Whole-Body Kinematics: Response Corridors for Restrained PMHS in Frontal Impacts

Session 1-4 - Frontal / Pole Impacts 2

- Morgan R, Cui C, Marzougui D, Digges K, Cao L, Kan C-D: Frontal Pole Impacts
- Lockhart P, Cronin D: Short Communication: Evaluation of Occupant Response and Injury Metrics for Pole Crash Scenarios
- Rebelle J: Short Communication: Design of an airbag system to prevent the ejection of forklift truck drivers in case of tip-over

Session 2-1 - Vehicle Technology

- Pipkorn B, Fredriksson R, Oda S, Takahashi Y, Suzuki S, Ericsson M: Development and Validation of a Generic Universal Vehicle Front Buck and a Demonstration of its Use to Evaluate a Hood Leading Edge Bag for Pedestrian Protection
- Ikeda M, Suzuki S, Takahashi Y, Oda S, Fredriksson R, Pipkorn B: Effect of Pedestrian Buck Contact Area and Force-Deflection Property on Pedestrian Pelvis and Lower Limb Injuries
- McDonnell G, D'Souza R, Bertocci G, Tiernan J, Simms C: The Influence of Pelvic-belt Angle on Wheelchair Occupant Injury Risk: a simulation study
- Untaroiu C, Adam T: Occupant Classification for an Adaptive Restraint System: The Methodology and Benefits in Terms of Injury Reduction

Session 2-2 - Rear-End Impact / Spinal Injuries (ADSEAT Special Session)

- Stemper B, Baisden J, Yoganandan N, Pintar F, DeRosia J, Whitley P, Paskoff G, Shender B: Effect of Loading Rate on Injury Patterns During High Rate Vertical Acceleration
- Cronin D, Fice J, DeWit J, Moulton J: Upper Cervical Spine Kinematic Response and Injury Prediction
- Linder A, Olsén S, Eriksson J, Svensson M, Carlsson A: Influence of Gender, Height, Weight, Age, Seated Position and Collision Site related to Neck Pain Symptoms in Rear End Impacts
- Carlsson A, Chang F, Lemmen P, Kullgren A, Schmitt K-U, Linder A, Svensson M: EVARID - A 50th Percentile Female Rear Impact Finite Element Dummy Model
- Schmitt K-U, Weber T, Svensson M, Davidsson J, Carlsson A, Björklund M, Jakobsson L, Tomasch E, Linder A: Short Communication: Seat testing to investigate the female neck injury risk - preliminary results using a new female dummy prototype
- Gutsche A, Tomasch E, Sinz W, Cerrillo X, Levallois I, Schmitt K-U, Weber T, Steffan H: Short Communication: Basic comparison of the injury risk of a male and female dummy model in rear impact collisions

Session 2-3 - Lower Extremities 1

- Frimenko R, Liewers W, Riley P, Crandall J, Kent R: A Method to Induce Navicular-Cuneiform/Cuneiform-First Metatarsal Sprain in Athletes
- Meyer E, Wei F, Button K, Powell J, Haut R: Determination of Ligament Strain During High Ankle Sprains due to Excessive External Foot Rotation in Sport
- Masouros S, Newell N, Bonner T, Ramasamy A, Hill A, West A, Clasper J, Bull A: A standing vehicle occupant is likely to sustain a more severe injury than one who has flexed knees in an under-vehicle explosion: a cadaveric study.

Session 2-4 - Lower Extremities 2

- Newell N, Masouros S, Ramasamy A, Bonner T, Hill A, Clasper J, Bull A: Use of cadavers and anthropometric test devices (ATDs) for assessing lower limb injury outcome from under-vehicle explosions.
- Takahashi Y, Ikeda M, Imaizumi I, Kikuchi Y, Takeishi S: Validation of Pedestrian Lower Limb Injury Assessment using Subsystem Impactors
- Gunji Y, Okamoto M, Takahashi Y: Examination of Human Body Mass Influence on Pedestrian Pelvis Injury Prediction Using a Human FE Model

Session 3-1 - Accident Analysis 3

- Rizzi M, Strandroth J, Sternlund S, Tingvall C, Fildes B: Motorcycle Crashes into Road Barriers: the Role of Stability and Different Types of Barriers for Injury Outcome
- Strandroth J, Rizzi M, Kullgren A, Tingvall C: Head-on collisions between passenger cars and heavy goods vehicles: Injury risk functions and benefits of Autonomous Emergency Braking ([AEBS](#)).
- Ejima S, Ito D, Satou F, Mikami K, Ono K, Kaneoka K, Shiina I: Effects of Pre-impact Swerving/Steering on Physical Motion of the Volunteer in the Low-Speed Side-impact Sled Test
- Lindman M, Nyström J, Jakobsson L, Ödblom A: Short Communication: Monitoring the past and the future of a passenger car auto brake system
- Lindman M, Kovaceva J, Levin D, Svanberg B, Jakobsson L, Wiberg H: Short Communication: A first glance at Driver Alert Control in FOT-data

Session 3-2 - Analysis Of Impact Scenarios

- Preatoni E, Stokes K, England M, Trewartha G: Forces Generated in Rugby Union Machine Scrumming at Various Playing Levels
- Hue C, Vo K, Effgen G, Vogel E, Panzer M, Bass C, Meaney D, Morrison B: Integrity Disruption of an In Vitro Blood-Brain Barrier Model Following Exposure to Blast Overpressure
- Iluk A: Selected aspects of the control of the human body motion in the vehicle subjected to the blast load
- Rashid B, Destrade M, Gilchrist M: Experimental Characterisation of Neural Tissue at Collision Speeds
- Tan K, Cheng S, Clarke E, Green M, Sinkus R, Bilston L: Short Communication: Combining Rheometry and Elastography to Understand Large Deformation Soft Tissue Properties
- Donnelly B, Moorhouse K: Short Communication: Optimized Phasing of PMHS Response Curves for Biofidelity Targets

Session 3-3 - Head And Brain Injuries 1

- Post A, Oeur A, Hoshizaki B, Gilchrist M: The influence of centric and non-centric impacts to American football helmets on the correlation between commonly used metrics in brain injury research
- Kendall M, Post A, Rousseau P, Oeur A, Gilchrist M, Hoshizaki B: A comparison of dynamic impact response and brain deformation metrics within the cerebrum of head impact reconstructions representing three mechanisms of head injury in ice hockey
- Antona-Makoshi J, Davidsson J, Ejima S, Ono K: Reanalysis of monkey head concussion experiment data using a novel monkey finite element model to develop brain tissue injury reference values

Session 3-4 - Head And Brain Injuries 2

- Effgen G, Gill E, Morrison B: A Model of Repetitive, Mild Traumatic Brain Injury and a Novel Pharmacological Intervention to Block Repetitive Injury Synergy
- Shafieian M, Laksari K, Darvish K, Crandall J: Development of a Constitutive Model for Brain Tissue under Multiaxial Loading
- Finan J, Pearson E, Morrison B: Viscoelastic Properties of the Rat Brain in the Horizontal Plane

Session 4-1 - Tissue Characterization

- Papy A, Robbe C, Nsiampa N, Oukara A, Goffin J: Definition of a standardized skin penetration surrogate for blunt impacts
- Gallagher A, Ní Anniadh A, Bruyere K, Otténio M, Xie H, Gilchrist M: Dynamic Tensile Properties of Human Skin
- Takaza M, Simms C: The Passive Response of Skeletal Muscle to Compressive Impact Loading
- Gras L, Laporte S, Mitton D, Crevier-Denoix N, Viot P: Tensile Tests on a Muscle: Influence of Experimental Conditions and of Velocity on its Passive Response
- Forman J, del Pozo de Dios E, Symeonidis I, Duarte J, Kerrigan J, Salzar R, Balasubramanian S, Segui-Gomez M, Kent R: Fracture Tolerance Related to Skeletal Development and Aging Throughout Life: 3-Point Bending of Human Femurs

Session 4-2 - Advances In Dummy Technology

- Nakajima T, Yamazaki K, Ono K, Kadotani Y, Sawada M: Calibration Test Method for enhancing the BioRID-II Dummy's Repeatability and Reproducibility
- Loyd A, Nightingale R, Song Y, Luck J, Cutcliffe H, Myers B, Bass C: Impact Properties of Adult and ATD Heads
- Tylko S, Bussi eres A: Responses of the Hybrid III 5th Female and 10-year-old ATD Seated in the Rear Seats of Passenger Vehicles in Frontal Crash Tests
- Johannsen H, Trosseille X, Lesire P, Beillas P: Estimating Q-Dummy Injury Criteria Using the CASPER Project Results and Scaling Adult Reference Values
- Beck B, Brown J, Bilston L: Short Communication: Objective Measures for Determining Submarining and Abdominal Injury in Hybrid III Crash Test Dummies

Session 4-3 - Impact Biomechanics Modelling

- Vandenbulcke F, Rahmoun J, Morvan H, Naceur H, Drazetic P, Fontaine C, Bry R: On the Mechanical Characterization of Human Humerus using Multi-scale Continuum Finite Element Model
- Desai C, Sharma G, Shah P, Ageorges C, Mayer C, Fressmann D: A generic Positioning Tool for Human Body FE Models
- Meijer R, van Hassel E, Broos J, Elrofai H, van Rooij L, van Hooijdonk P: Development of a Multi-Body Human Model that Predicts Active and Passive Human Behaviour
- Doerfel S, Zhou K, Sharma G, Mayer C, Peldschus S: Short Communication: Development of FE models of clavicular ligaments: quasi-static tensile test and FE simulation

Session 4-4 - Aorta And Lung Injuries

- Romo A, Avril S, Badel P, Molimard J, Duprey A, Favre J-P: Mechanical Characterization of the Thoracic Ascending Aorta
- Litzler S, Vezin P: Characterization of the intima layer of the aorta by Digital Image Correlation in dynamic traction up to failure

- Khalili Parsa H, Karac A, Ivankovic A: Surrogate Lung Material for Impact Studies: Development and Testing

Session 5-1 - Vulnerable Road Users 1

- Kerrigan J, Arregui-Dalmases C, Foster J, Crandall J, Rizzo A: Pedestrian Injury Analysis: Field Data vs. Laboratory Experiments
- Mueller B, Nolan J, Zuby D, Rizzo A: Pedestrian Injury Patterns in the United States and Relevance to GTR
- Lyons M, Simms C: Predicting the Influence of Windscreen Design on Pedestrian Head Injuries
- Hamacher M, Eckstein L, Paas R: Vehicle Related Influence of Post-Car Impact Pedestrian Kinematics on Secondary Impact
- Paas R, Davidsson J, Masson C, Sander U, Brolin K, Yang J: Pedestrian Shoulder and Spine Kinematics in Full-Scale PMHS Tests for Human Body Model Evaluation
- Corrigenda (received 21.01.2014): Paas R, Davidsson J, Masson C, Sander U, Brolin K, Yang J: Pedestrian Shoulder and Spine Kinematics in Full-Scale PMHS Tests for Human Body Model Evaluation (corrected version)
- Anderson R, Searson D, Hutchinson T: Integrating the assessment of pedestrian safety in vehicles with collision detection and mitigation systems
- Lubbe N, Edwards M, Wisch M: Short Communication: Towards an Integrated Pedestrian Safety Assessment Method

Session 5-2 - Vulnerable Road Users 2

- Peng Y, Deck C, Yang J, Otte D, Willinger R: A study of kinematics of adult pedestrian and head impact conditions in case of passenger car collisions based on real world accident data
- Fredriksson R, Rosén E: Priorities for Bicyclist Protection in Car Impacts - a Real life Study of Severe Injuries and Car Sources
- Fahlstedt M, Baeck K, Halldin P, Vander Sloten J, Goffin J, Depreitere B, Kleiven S: Influence of Impact Velocity and Angle in a Detailed Reconstruction of a Bicycle Accident
- van Schijndel M, de Hair S, Rodarius C, Fredriksson R: Cyclist kinematics in car impacts reconstructed in simulations and full scale testing with Polar dummy
- Milne G, Deck C, Bourdet N, Carreira R, Allinne Q, Willinger R: Development and validation of a bicycle helmet: Assessment of head injury risk under standard impact conditions

Session 6-1 - Thorax Injuries (THORAX Special Session)

- Lemmen P, Been B, Carroll J, Hynd D, Davidsson J, Song E, Lecuyer E: Development of an advanced frontal dummy thorax demonstrator
- Brolin K, Mendoza-Vazquez M, Song E, Lecuyer E, Davidsson J: Design Implications for Improving an Anthropomorphic Test Device based on Human Body Simulations
- Lebarbé M, Petit P: New Biofidelity Targets for the Thorax of a 50th Percentile Adult Male in Frontal Impact
- Gierczycka-Zbrozek D: Short Communication: Application of the Human Thorax FE Model in Passive Restraint Assessment
- Toczyski J, Gierczycka-Zbrozek D: Short Communication: Computational Modeling of the Thorax under High Impulse Loading
- Cronin D: Short Communication: Application of a Detailed Thorax Model to Investigate Behind Armour Blunt Trauma

Frühere Tagungen

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