

SELECTED PUBLICATIONS:

Atarod M. An Evaluation of Occupant Dynamics During Moderate-to-High Speed Side Impacts; Journal of Engineering in Medicine; 2021, 235 (5): 546-565.

Atarod M. Occupant Kinematics During Moderate-to-High Speed Side Impacts; SAE International Journal of Transportation Safety; 2020-01-5165.

Atarod M. Reconstruction of Passenger Vehicle Underride: An Analysis of Insurance Institute for Highway Safety Semi-Trailer Rear Underride Crash Data; SAE International Journal of Transportation Safety; 2020-01-5091.

Atarod M. Biomechanics of Passenger Vehicle Underride. Society of Automotive Engineers; 2020-01-0525.

Atarod M. Occupant Dynamics During Moderate-to-High Speed Rear-End Collisions. Society of Automotive Engineers; 2020-01-0516.

Shekarforoush M, Barton KI, **Atarod M**, Heard BJ, Frank CB, Hart DA, Shrive NG. An Explicit Method for Analysis of Three-Dimensional Linear and Angular Velocity of a Joint with Specific Application to the Knee Joint. Journal of Medical and Biological Engineering; 2018, 38(2): 273-283.

Heard BJ, Beveridge JE, **Atarod M**, O'Brien EJ, Rolian C, Frank CB, Hart DA, Shrive NG. Analysis of Change In Gait In the Ovine Stifle: Normal, Injured and Anterior Cruciate Ligament Reconstructed. BMC Musculoskeletal Disorders; 2017, 18(1): 212.

Barton KI, Shekarforoush M, Heard BJ, Sevick JL, Vakil P, **Atarod M**, et al. Use of Pre-Clinical Surgically Induced Models To Understand Biomechanical and Biological Consequences of PTOA Development. Journal of Orthopaedic Research; 2017, 35(3): 454-465.

Beveridge JE, **Atarod M**, Heard BJ, O'Brien EJ, Frank CB, Shrive NG. Relationship Between Increased In Vivo Meniscal Loads and Abnormal Tibiofemoral Surface Alignment in ACL Deficient Sheep is Varied. Journal of Biomechanics; 2016, 49(16): 3824-3832.

Rosvold JM, **Atarod M**, Heard BJ, O'Brien EJ, Frank CB, Shrive NG. Ligament and Meniscus Loading In The Ovine Stifle Joint During Normal Gait. Knee; 2016, 23(1): 70-77.

Rosvold JM, **Atarod M**, Frank CB, Shrive NG. An Instrumented Spatial Linkage For Measuring Knee Joint Kinematics. Knee; 2016, 23(1): 43-48.

Atarod M, Ludwig TE, Frank CB, Schmidt TA, Shrive NG, Cartilage Boundary Lubrication of Ovine Synovial Fluid Following ACL Transection. *Osteoarthritis and Cartilage*; 2015, 23(4): 640-647.

Atarod M, Frank CB, Shrive NG. Increased Meniscus Loading After Anterior Cruciate Ligament Rupture In Vivo: A Longitudinal Study. *Knee*; 2015, 22(1): 11-17.

Atarod M, Rosvold JM, Frank CB, Shrive NG. A Novel Testing Platform For Assessing In Vivo Knee Joint Mechanics. *Annals of Biomedical Engineering*; 2014, 42(5): 1121-1132.

Atarod M, Frank CB, Shrive NG. Decreased Posterior Cruciate and Altered Collateral Ligament Loading Following ACL Transection. *Journal of Orthopaedic Research*; 2014, 32(3): 431-438.

Atarod M, Frank CB, Shrive NG. Kinematic and Kinetic Interactions During Normal and ACL-Deficient Gait. *Annals of Biomedical Engineering*; 2014, 42(3): 566-578.

Atarod M, Rosvold JM, Frank CB, Shrive NG. Functional Activity of the Anterior and Posterior Cruciate Ligaments Under In Vivo Gait and Static Physiological Loads. *Annals of Biomedical Engineering*; 2013, 41(10): 2067-2076.

Atarod M, Rosvold JM, Kazemi M, Li LP, Frank CB, Shrive NG. Inter-Insertional Distance is a Poor Correlate for Ligament Load. *Journal of Biomechanics*; 2013, 46(13): 2264-2270.

Gudena R, **Pilambaraei MA**, Werle J, Shrive NG, Frank CB. A Safe Overhang Limit for Unicompartmental Knee Arthroplasties Based on Medial Collateral Ligament Strains. *Journal of Arthroplasty*; 2013, 28(2): 227-233.

Atarod Pilambaraei M, O'Brien EJ, Frank CB, Shrive NG. There is Significant Load Sharing and Physical Interaction Between the Anteromedial and Posterolateral Bundles of the Ovine ACL Under Anterior Tibial Loads. *Knee*; 2012, 19(6):797-803.

SELECTED PRESENTATIONS:

Atarod M. A Simplified View of Forensic Injury Biomechanics (CEU). National Association of Catastrophe Adjusters (NACA), January 2022, Las Vegas, NV.

Atarod M. Bodily Injury Basics for the Claims Adjuster (CEU). Circle K Corporate Webinar, October 2021.

Wagner T, Shuck S, **Atarod M**. Forensic Engineering/Investigation Overview (CEU). North American Risk Services (NARS) Webinar, May 2021.

Atarod M. Premises Liability, Slip, Trip and Fall Analysis: A Biomechanical Perspective. Irvine Company Webinar, April 2021.

Atarod M. Accident Reconstruction and Injury Biomechanics: A Simplified View. ThyssenKrupp Elevator Claims Webinar, March 2021.

Atarod M. A Simplified View of Forensic Injury Biomechanics. Washington Defense Trial Lawyers (WDTL) Webinar, January 2021.

Atarod M. Jensen Hughes: Biomechanical Engineers Bring New Perspectives to Insurers. AM BEST Video, December 2020.

Atarod M, Rosvold JM, Frank CB, Shrive NG. Reproduction of In-Vivo Gait Using a Novel Robotic Manipulator and Accuracy of the Tissue Forces Determined. ORS 2015, Las Vegas, NV, United States.

Atarod M, Frank CB, Shrive NG. Diminished Cartilage Lubrication Early After ACL Injury and Increased Meniscal Loads Later After an ACL Injury May Both Contribute To OA Development in an Ovine Model. ORS 2014, New Orleans, LA, United States.

Atarod M, Frank CB, Shrive NG. In Vivo Ligament and Meniscal Loads Following ACL Injury: A Longitudinal Study. ISB 2013, Natal, Brazil (ISB Young Investigator's Award).

Atarod M, Rosvold JM, Frank CB, Shrive NG. In Vivo Ligament and Meniscus Loading During Normal Gait in the Ovine Stifle Joint: A Huge Inter-Subject Variability. ORS 2013, San Antonio, TX, United States.

Shrive NG, **Atarod M**, Rosvold JM, Frank CB. Inter-Insertional Distance Is Not A Good Predictor Of Ligament Load. CMBBE 2013, Salt Lake City, UT, United States (keynote).

Atarod M, Kazemi M, Rosvold JM, Frank CB, Shrive NG. For Fixed ACL Lengths, the ACL Force Varies with Relative Bone Orientations: A Finite Element Study. CSCE 2012, Edmonton, AB, Canada (Finalist Paper).

Atarod M, Gudena R, Werle J, Shrive NG, Frank CB. Tibial Component Overhang Greater Than 2 mm Should Be Avoided in Unicompartamental Knee Replacements: An In Vitro Robotic Study. ORS 2012, San Francisco, CA, United States.