Poster Session
Mach Conference 2023

Investigating shock wave propagation, evolution, and anisotropy using a moving window concurrent atomistic-continuum framework
Presenter: Vinamra Agrawal, Auburn University
Co-authors: A. Davis

Simulating repeated early-time shock wave impact on a surrogate head model.
Presenter: Rohan Banton, US ARMY DEVCOM ARMY Research laboratory

A Scalable Platform for Modeling Blast Injuries Using Sensors, Cloud Computing, and Machine Learning
Presenter: Oishwarya Bhowmik, Penn State Institute for Computational and Data Sciences
Co-authors: R. Kraft

Twinning effects on ductile damage in an (α+β) Ti alloy: an SEM in-situ investigation
Presenter: Megan F.L. Cooper, Massachusetts Institute of Technology
Co-authors: S.L. Wei, C.C. Tasan

Development of Deep-Network Learned Interatomic Potential for Shock Simulations of B4C
Presenter: Kimia Ghaffari, University of Florida
Co-authors: S. Bavdekar, G. Subhash, D. Spearot

Quantifying Pore Size Distribution during Hypervelocity Impact in Soda Lime Glass from Experiments and its Theoretical Validation
Presenter: Sohanjit Ghosh, Johns Hopkins University
Co-authors: M. Thakur, R. Hurley

A novel multiscale modeling of composites in a deep learning framework
Presenter: Ashwini Gupta, Johns Hopkins University
Co-authors: L. Graham-Brady

An Analytical, Multiscale Model for Predicting Granular Elasticity Incorporating Force Chain Mechanics
Presenter: Adyota Gupta, Johns Hopkins University
Co-authors: K.T. Ramesh, R. Hurley

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Characterization of Interface Debonding in Particulate Composites using an Embedded Digital Image Correlation Technique
Presenter: Tomislav Kosta, Air Force Research Laboratory
Co-authors: C. Ridge, M. Hatter

From 2D to 3D: Resolving Flow Fields Around Sand Penetrators From Flash X-ray Imaging
Presenter: Brett Kuwik, Johns Hopkins University
Co-authors: R. Hurley

Application techniques of DIC patterns on Impact Problems
Presenter: N. Lorenzo, DEVCOM Army Research Laboratory
Co-authors: P. Jannotti

High-Rate Ductile Fracture of an Aluminum 7-Series Alloy at a Range of Stress Triaxialities
Presenter: Christopher Meredith, Army Research Lab

An experimental study on the orientation and the distribution of microscopic strain localization
Presenter: Julian Rackwitz, MIT
Co-authors: C. Tasan

Assessment of a two-surface plasticity model for hexagonal materials
Presenter: Vigneshwaran Radhakrishnan, Texas A&M University
Co-authors: A. Benzerga

Computer Vision Quantification of Impact Driven Fracture Geometry
Presenter: Logan Shannahan, DEVCOM Army Research Laboratory
Co-authors: P. Jannotti