

20th Annual NORA Symposium Schedule

Thursday, April 21, 2022

7:45	-	8:00	CHECK-IN
8:00	-	8:30	CONTINENTAL BREAKFAST
8:30	-	8:45	<i>WELCOME</i> Andrew S. Merryweather, University of Utah

8:45	-	9:45	<u>Keynote Speaker</u> <i>“Future Work in the Transportation Sector”</i> <u>William “Karl” Sieber Ph.D, MScHyg</u> CDC · Division of Surveillance, Hazard Evaluations, and Field Studies
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9:45	-	10:15	BREAK
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Session 1

10:15	-	10:30	<u>Katrina Cernucan</u> <i>Ergonomic Evaluation of Novel Aerosol Containment Hood</i>
10:30	-	10:45	<u>Yishu Yan</u> <i>The Impact of Computer Mice Weight on Muscle Activity, Performance, and User Preference While Gaming</i>
10:45	-	11:00	<u>Frederick C. Houghton III</u> <i>Investigating the Influence of Chair Design Features on Trunk Sway Parameters During Computer Based Tasks Over a Prolonged Bout of Sitting</i>
11:00	-	11:15	<u>Rudi A. Marciniak</u> <i>Quantifying Workload in Active-Duty Firefighters</i>
11:15	-	11:30	<u>Zahara Vahedi</u> <i>Correlation Between Ratings of Perceived Exertion and Strength Declines for Fatiguing Order Picking Tasks</i>
11:30	-	11:45	<u>Carly A. Wahl</u> <i>Influence of Uniform Base Layer on Perceptions of Stress, Recovery, and Sleep in Career Firefighters</i>
11:45	-	12:00	<u>Nathan Broyles</u> <i>Metabolic Energy Analysis for Different External Loading Arrangements During Countermovement Jump</i>

12:00	-	1:00	LUNCH
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**The full program can be downloaded at <https://nora.mech.utah.edu/program/>

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Session 2

- 1:00 - 1:15 Youngjae Lee
Non-Treadmill-Based Trip Training: A Preliminary Study with Healthy Young Adults
- 1:15 - 1:30 Shiva Nageswaran
Significance of Seat Belt Buckle Release Force Post Passenger Vehicle Rollover
- 1:30 - 1:45 Riley Armbruster
Design and Testing of Engineering Controls for Residential Riding Lawn Mowers to Reduce the Frequency of Ride-Over Accidents
- 1:45 - 2:00 Uchenna C. Ogbonnaya
Burnout and Engagement's Relationship to Drug Abuse in Lawyers and Law Professionals
- 2:00 - 2:15 Constancia Dominguez
The relationship between safety climate and mental health during the COVID-19 pandemic in the grocery industry using an item response theory modeling approach
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BREAK – Poster Session

- 2:15 - 3:30
1. Working alone and remote: Preventing the risk of fatality from cardiovascular events in oil and gas extraction workers (Stacy M. Zimmerman, University of Utah)
 2. Leveraging current research on SARS-CoV-2 pandemic response to protect workers from future respiratory threats through the Total Worker Health Core Competencies framework (Ariana R.G. Callahan, University of Utah)
 3. Negotiating the Challenges, Risks, and Responsibilities of Conducting Community Based Participatory Research (cbpr) With Business Owners (J. Van Natter, University of Utah)
 4. Analysing 3D Anthropometrics of Diverse Populations for Respirator Sizing Outcomes (Kayna Hobbs-Murphy, Colorado State University)
 5. Parental Individual- and Neighborhood-Levels Socioeconomic Status as Predictors of Childhood Mortality (Huong D. Meeks, University of Utah-HCI)
 6. The Relationship Between Psychosocial Stress, Biomechanical Stress and Musculoskeletal Disorders in Hotel Room Cleaners (Uchenna C. Ogbonnaya, Taryn T. Hunt-Smith, University of Utah)
 7. Incidence of COVID-19 Infection in Utah Children During Delta and Omicron Circulation (Jacob McKell, University of Utah)
 8. Community-Engaged Approaches to Minimize Worker Exposure to COVID-19 in the Workplace (Oscar Zamudio, University of Utah)
 9. Mask-Use Trends and Prevalence of SARS-CoV-2 Infection During the Omicron Surge in a Utah Population of Healthcare Workers, First Responders, and Other Frontline Workers (Riley Campbell, University of Utah)
 10. Required Coefficient of Friction and Influence of Slope on Unimpaired Gait (Jamie Herridge, University of Utah)
 11. Design of a Portable Chin-Rest System for Patient Eye Examinations in Remote Locations (Thania Arellano, University of Utah)
 12. Noise Hazard Characterization in Academic Support Facilities (Niles Andrus, University of Utah)
 13. Respirable Dust Sampling at a Composites Manufacturing Site (Kenny Ahlstrom, University of Utah)
 14. Combustible Dust Analysis at a Utah-Based Company (Ryan Saullo, University of Utah)
 15. Quantifying Upper Body Postures with a Motion Sensing Garment (Katie M Allen, University of Utah)
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Session 3

- 3:30 - 3:45 Joseph A. Allen
Why Am I So Exhausted?: Exploring Meeting-To-Work Transition Time and Recovery From Virtual Meeting Fatigue
- 3:45 - 4:00 Camie Schafer
Introduction to Total Worker Health® and U-POWER
- 4:00 - 4:15 Katherine C. Castro
Examining the Best Meeting Practices Across Modalities
- 4:15 - 4:30 Robert Seseck
Structured Creativity Techniques for Occupational Safety and Health
- 4:30 - 4:45 Alex Belyayev
Certified Hand Therapists' Interactions with Occupational Safety and Health Professionals, and Their Roles in the Treatment and Prevention of Occupational Hand Injuries
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7:45 - 8:00 CHECK-IN
8:00 - 8:30 CONTINENTAL BREAKFAST

Special Presentation
*19th Annual Paul S. Richards, MD, Endowed Distinguished
Visiting Lectureship in Occupational Medicine*
8:30 - 9:30 **Don Mays, MS**
“Product Safety: The Nuts, Bolts, and Screw-ups”

9:30 - 10:00 **BREAK**

Session 4

10:00 - 10:15 **Duncan T. Stevenson**
*Classifying Hazardous Movements and Loads During Manual Materials
Handling Using Accelerometers and Instrumented Insoles*

10:15 - 10:30 **Iván Nail-Ulloa**
*Assessment of Manhole Removal and Placement Using Inertial Motion
Capture*

10:30 - 10:45 **Amber Young**
Prediction of Fit and Support Settings for ShoulderX Passive Exoskeleton

10:45 - 11:00 **Ted Medina**
*Manual Material Handling in Confined Spaces Using a Wearable Lift-
Assist Device*

11:15 - 11:30 **Alex Ingram**
Ergonomic Assessments for Waste-Processing Workers

11:30 - 11:45 **WRAP-UP**

12:00 - 1:00 **LUNCH**

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