

AGU PRESENTERS



GUO YU, Ph.D.

QUANTIFICATION OF THE ROLE OF WILDFIRE IN SHAPING
FLOOD FREQUENCY FOR A SOUTHERN CALIFORNIA
MOUNTAINOUS WATERSHED

Guo Yu, Desert Research Institute, Division of Hydrologic Sciences, Reno,
United States

LOCATION

150 B
CONVENTION CENTER

DECEMBER 9, 2024

15:15 - 15:25

A13L-07



LOCATION

HALL B-C (POSTER)
CONVENTION CENTER

DECEMBER 9, 2024

13:40 - 17:30

H13J-1126

KAILONG LI, Ph.D.

BRIDGING THE GAP BETWEEN PROCESS-BASED
HYDROLOGICAL MODELS AND MACHINE LEARNING
THROUGH A PHYSICS-GUIDED DEEP LEARNING APPROACH

Kailong Li¹, Markus Berli¹, Gabrielle Boisrame² and Farnaz Hosseinpour³, (1)Desert Research Institute, Division of Hydrologic Sciences, Las Vegas, United States, (2)Desert Research Institute, Division of Hydrologic Sciences, Reno, United States, (3)Desert Research Institute, Division of Atmospheric Sciences, Reno, United States

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ANANYA SEN

THE ROLE OF UPPER-LEVEL JET IMBALANCE IN A MESOSCALE GRAVITY WAVE EVENT ORGANIZED NEAR COMPLEX TERRAIN

Ananya Sen, Desert Research Institute Reno, Reno, NV, United States and Michael Kaplan, Desert Research Institute, Reno, NV, United States

LOCATION

**INDEPENDENCE E
MARRIOTT MARQUIS**

DECEMBER 10, 2024

08:50 - 09:00

SA21A-03



LOCATION

**145 B
CONVENTION CENTER**

DECEMBER 10, 2024

10:35 - 10:45

H22D-02A

SAYANTAN MAJUMDAR, Ph.D.

MULTI-DECADAL ANALYSIS OF GROUNDWATER WITHDRAWALS IN ARIZONA USING REMOTE SENSING AND MACHINE LEARNING

Sayantan Majumdar, Desert Research Institute, Division of Hydrologic Sciences, Reno, United States, Ryan Smith, Colorado State University, Civil and Environmental Engineering, Fort Collins, United States, Brian D Conway, Arizona Department of Water Resources, Phoenix, AZ, United States and Collin Wogenstahl, Arizona Department of Water Resources, Phoenix, United States

POSTER PRESENTERS

DECEMBER 10, 2024

HALL B-C

GHAZAL MEHDIZADEH

08:30 - 12:20

IMPACTS OF ATMOSPHERIC CONDITIONS ON CLOUD SEEDING: A NUMERICAL APPROACH

JOSEPH AMMATELLI, Ph.D.

13:40 - 17:30

TOWARDS ENHANCED UNDERSTANDING OF SNOW-SOIL ENERGY EXCHANGES AND THEIR EFFECT ON SNOW PROCESSES: AN INTEGRATED NUMERICAL MODELING APPROACH

JUAN HOSE HENAO, Ph.D.

13:40 - 17:30

ADDED VALUE OF SMOKE PLUME DISPERSION IN FORECASTING PM_{2.5} IN THE RENO-SPARKS URBAN AREA USING MACHINE LEARNING APPROACHES

INCHEOL KIM, Ph.D.

13:40 - 17:30

MODELING THERMAL-HYDRO-MECHANICAL PROCESSES IN SNOW-SOIL INTERACTION DURING SHOULDER SEASONS

KABIR RASOULI, Ph.D.

13:40 - 17:30

ASSESSING SNOW-SOIL RELATIONSHIPS AND THEIR IMPACT ON SOIL STRENGTH ACROSS DIVERSE SNOW CLIMATES

POSTER PRESENTERS

DECEMBER 11, 2024

HALL B-C

DENNIS HALLEMA, Ph.D.

08:30 - 12:20

PERIODICITY IN RAIN-ON-SNOW POTENTIAL AND RUNOFF GENERATION IN THE AMERICAN CORDILLERA

TYLER DOANE, Ph.D.

13:40 - 17:30

TESTING THE UTILITY OF SAR FOR MAPPING SURFACE FLOW EVENTS IN POST-FIRE SETTINGS

SOPHIA WENSMAN, Ph.D.

13:40 - 17:30

FIRST DEPLOYMENT OF BARE FIBER IN A FREEZING ENVIRONMENT USING THE ICE DIVER MELT PROBE



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MARKUS BERLI, Ph.D.

FIRE-INDUCED CHANGES IN SOIL STRUCTURE AND HYDRAULIC CONDUCTIVITY – A CONCEPTUAL MODEL

Markus Berli, Desert Research Institute, Division of Hydrologic Sciences, Las Vegas, United States, Rose Shillito, US Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, Vicksburg, United States, Dani Or, DRI, Reno, United States, Jeremy Giovando, US Army Corps of Engineers, Cold Regions Research and Engineering Laboratory, Hanover, United States, Jang Pak, U.S. Army Corps of Engineers, Institute For Water Resources, Hydrologic Engineering Center, Davis, United States, Nawa Raj Pradhan, Engineer Research and Development Center, Coastal and Hydraulics Laboratory, Hydrologic Systems Branch, Vicksburg, MS, United States, René Vermeeren, US Army Corps of Engineers, Los Angeles District, Los Angeles, United States, Ian Eli Floyd, US Army Corps of Engineers, Engineer Research and Development Center, Coastal and Hydraulics Laboratory, US Army, Vicksburg, MS, United States and Sean McKenna, Desert Research Institute, Division of Hydrologic Sciences, Reno, United States

LOCATION
SALON C
CONVENTION CENTER

DECEMBER 12, 2024
16:30 – 16:40

GC44E-04



LOCATION
HALL B-C (POSTER)
CONVENTION CENTER

DECEMBER 12, 2024
08:30 – 12:20

H41H-0631

RACHEL KOZLOSKI

WASTEWATER TREATMENT WETLANDS: MICROPLASTIC SOURCE OR SINK?

Rachel Kozloski, Desert Research Institute Reno, Reno, NV, United States and Monica M Arienzo, Desert Research Institute, Reno, United States



MARK HAUSNER, Ph.D.

DISSOLVED BLACK AND BROWN CARBON CAN LEAD TO INCREASED TEMPERATURES IN SURFACE WATERS

Mark B Hausner¹, Brittany Kruger², Nathan Chellman¹, Monica M Arienzo³ and Jodi L. Ryder⁴, (1)Desert Research Institute, Division of Hydrologic Sciences, Reno, United States, (2)Desert Research Institute Las Vegas, Las Vegas, NV, United States, (3)Desert Research Institute, Reno, United States, (4)US Army Engineer Research and Development Center, Environmental Laboratory, Vicksburg, MS, United States

LOCATION

145 B

CONVENTION CENTER

DECEMBER 13, 2024

08:57 - 09:07

H51D-03



LOCATION

SALON A

CONVENTION CENTER

DECEMBER 13, 2024

16:00 - 16:10

GC54A-01

JOHN MEJIA, Ph.D.

URBAN COOLING STRATEGIES EFFICACY ACROSS CLIMATE REGIMES

John Mejia¹, Juan Jose Henao¹, Scott E. Krayenhoff² and Alberto Martilli³, (1) Desert Research Institute, Division of Atmospheric Sciences, Reno, United States, (2)University of Guelph, Guelph, ON, Canada, (3)Ciemat, Madrid, Spain



TYLER DOANE, Ph.D.

SPATIAL PATTERNS OF TREE UPROOTING MAPPED ACROSS THE EASTERN U.S. USING MACHINE LEARNING

Tyler Doane, PhD¹, Brian Yanites² and Douglas A Edmonds², (1)Desert Research Institute Las Vegas, Division of Hydrologic Sciences, Las Vegas, NV, United States, (2)Indiana University Bloomington, Department of Earth and Atmospheric Sciences, Bloomington, United States

LOCATION

146 C

CONVENTION CENTER

DECEMBER 13, 2024

16:10 - 16:20

EP54B-02



POSTER PRESENTERS

DECEMBER 13, 2024

HALL B-C

NATHAN CHELLMAN, Ph.D.

08:30 - 12:20

ASSESSING POTENTIAL ABIOTIC AND BIOTIC MECHANISMS
DRIVING HIGH-FREQUENCY CO AND CH4 ANOMALIES
IN ARCTIC ICE

DANIEL MARK SAFTNER

13:40 - 17:30

COLLABORATIVE MODELING FOR SUSTAINABLE
GROUNDWATER MANAGEMENT IN A RURAL
NEVADAN COMMUNITY

MARIANA WEBB

13:40 - 17:30

DRIVERS OF ENHANCED FLOODING RISK DURING
ATMOSPHERIC RIVERS IN THE WESTERN U.S.
AND CENTRAL CHILE



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