

3rd Annual Earth and Environmental Sciences Student Research Symposium

February 21st, 2020
Lake Huron Room
MSU Union



Mt. Aragats, Armenia
Luis Martinetti

Agenda

9:00 – 9:50 Sign-In & Light Breakfast

9:50 – 10:00 Welcoming Remarks
Symposium Committee
*Allen McNamara, Graduate Affairs
Director*

10:00 – 10:45 Oral Session I

10:45 – 11:15 Refreshment Break

11:15 – 12:15 Oral Session II

12:15 – 1:00 Lunch

1:00 – 1:45 Poster Session

1:45 – 2:45 Oral Session III

2:45 – 3:00 Refreshment Break

3:00 – 4:00 Oral Session IV



Oral Session I 10:00 – 10:45

Examining the GPS velocity field in Northern Cordillera

Connor Drooff

Irrigation transition over the High Plains

Ally Brady ⚡

Quantifying nutrient loads to the Great Lakes coastline with a spatially explicit nutrient transport model

Luwen Wan

Assessing microbial community assembly in a serpentinization-influenced aquifer

Lindsay Putman ⚡

Refreshment Break 10:45 – 11:15

Oral Session II 11:15 – 12:15

Environmental controls on autotrophy in subsurface volcanically influenced systems

Heather Miller

Analyzing drivers of groundwater nitrate pollution in Michigan's Lower Peninsula

Quercus Hamlin ⚡

Exceptional Preservation in a Late Permian ray-finned fish (Actinopterygii) from the Minnekahta Limestone of South Dakota

Jack Stack

A lake's role in modulating aquatic biogeochemical signals in an Arctic River Network

Emma Haines 

Evolution of thermochemical piles

Jiixin Zhang

Lunch 12:15 – 1:00

Poster Session 1:00 – 1:45

Relating soil physical properties and geochemical signatures to bulk electrical resistivity

Amanda Liddle

Strength, deformation, and equation of state of tungsten carbide to 66 GPa

Ben Brugman

Constraining Mars' origin via simulations of multi-stage core formation

Gabriel Nathan

Disentangling roots from electrical resistivity signals: adding dynamic geochemistry to coupled hydrogeophysical inversions

Alexandria Kuhl

Oral Session III 1:45 – 2:45

Thermodynamic parameters of CaCO₃ predicted by a Markov Chain Monte Carlo method

Mingda Lyu

Estimation of septic nutrient input across the Canadian Great Lakes Basin

Kyle Cole ⚡

Extracting the spatio-temporal variations in the gravity field recovered from GRACE spatial mission: Methods and geophysical applications

Paoline Prevost

Seismic constraints on the Tonga slab surface and implications for its hydration state

Fan Wang ⚡

Assessing Groundwater Dynamics in the Headwaters of the Southern Amazon Basin

Brent P. Heerspink

Refreshment Break 2:45 – 3:00

Oral Session IV 3:00 – 4:00

Using lateral cusplets as ontogenetic indicators in lamnid sharks: benefits and shortcomings

Ryan L. McKeeby ⚡

Shear wave splitting in the Caucasus Mountains

Luis B. Martinetti

Simulating gravitational collapse in the Kuiper Belt

Jackson Barnes ⚡

Detecting irrigation in nuanced and diverse landscapes: A comparison of neural networks and forest-based classifiers

Jeremy Rapp

Evaluating Determinants of Flood Mitigation Behavior Among Michigan Residents

Eleanor Rappolee ⚡



Delta River, Alaska
Cennor Drooff

The Symposium Committee would like to thank the following organizations for their generous sponsorship of this event

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