Berkeley Rausser

College of Natural Resources



# Honors Research Symposium

Morgan Hall, Room 114

Thursday, May 2nd, 2024

# 8:30 a.m. Welcome & Dean's Message

# <u>8:48 AM</u>

**Peter Flo Grinde-Hollevik, EEP+Data Science** | Faculty Mentor: Duncan Callaway RCNR Faculty Sponsor: Sofia Villas-Boas, ARE Geospatial Embeddings for Pollution Prediction: NO2 in the Bay Area

# <u>9:00 AM</u>

**Enzo Cremers, EEP+Applied Mathematics** | Facilty Mentor: Shutri Sarode RCNR Faculty Mentor: Sofia Villas-Boas, ARE Policy Strategies to Accelerate the Deployment of Heavy-Duty Electric Vehicle Charging Infrastructure in California

## <u>9:12 AM</u>

**Jessica Liu, EEP** | Faculty Advisor: James Sallee, ARE Electrifying California: A Predictive Model for Electric Vehicle Adoption

# <u>9:24 AM</u>

**Sarah Ng, EEP** | Faculty Advisor: James Sallee, ARE The Inflation Reduction Act's Impact on Heat Pump Interest

# <u>9:36 AM</u>

**Malena Buffagni, EEP+S&E** | Faculty Advisor: Daniel Kammen, ERG Quantifying the Costs of Global vs. National Electric Vehicle Battery Supply Chains

## <u>9:48AM</u>

**Neida Aldana-Felix, S&E** | Faculty Advisor: Daniel Kammen, ERG Racial and Ethnic Inequalities in Electric Vehicle Adoption and Charging Infrastructure Availability

## <u>10:00 AM</u>

**Lanie Goldberg, EEP** | Faculty Advisor: Sofia Villas-Boas, ARE The Impact of California's LCFS Renewable Natural Gas Incentives on the Intensity of Dairy Factory Farming

## <u>10:12 AM</u>

Madden Miller, S&E | Faculty Advisor: Andrew Isaacs RCNR Faculty Sponsor: Kate O'Neill, ESPM The Intersection of Greenwashing in the Clothing Industry & Lack of Consumer Understanding of Climate Change

-----BREAK------

## 10:36 AM

# Alexandra Jade Garcia, S&E | Faculty Advisor: James Nolan

RCNR Faculty Sponsor: Youjin Chung, ERG

Towards a Feminist Analysis on Advancing Maternal Adaptive Capacity to Climate Change in the U.S.

## 10:48AM

**Ian Grace, S&E** | Faculty Advisor: Christy Getz, ESPM Wildfire Managed Retreat in California: Considerations for Climate Adaption in a Crowded and Combustible State

## <u>11:00AM</u>

**Kiran Bengard, CRS** | Faculty Advisor: Christy Getz, ESPM Harvesting Change: A Multifaced Analysis of the Challenges Faced by Small Farms in California's Central Valley

#### <u>11:12 AM</u>

**Amy Johnson Rodas CRS** + Poli Sci | Faculty Advisor: Kurt Spreyer, ESPM Solar Injustice: A Comparative Analysis of the Health and Economic Impacts of Solar Generation Methods on Minority Communities in California

#### <u>11:24 AM</u>

**Stella Wing, CRS** | Faculty Advisor: Minho Kim | RCNR Faculty Sponsor: Kurt Spreyer, ESPM A Spatiotemporal Analysis of Agricultural Land Use Changes in Caifornia's Central Valley during Recent Drought Years

#### 11:36 AM

**Rachel Whiteside, CRS** | Faculty Advisor: Iryna Dronova, ESPM Monitoring Agricultural Patterns in Ukraine During Wartime Using Remote Sensing and Machine Learning Technologies

#### <u>11:48 AM</u>

**Khristina Holterman, CRS** | Faculty Advisor: Alan Pomerantz RCNR Faculty Sponsor: Alistair Iles, ESPM Combatting CAFOs and Climate Change: Exploring the Implications and Argurments for Granting Livestock Legal Standing

#### 12:00 PM

**Luna Hohner-Shields, S&E** | Facultry Advisor: Margaret Slattery RCNR Faculty Sponsor: Carl Boettiger, ESPM Mapping the Feasibility of Renewable Microgrids for Adressing Energy Poverty in California

#### 12:12 PM

**Diana Kalantar, MEB** | Faculty Advisor: Christopher Martin RCNR Faculty Sponsor: Carl Boettiger, ESPM Brain Morphology Variation in Lake Barombi Mbo Cichlids: A Comparative Analyis of Forebrain, Midbrain, and Hindbrain

-----LUNCH------

1:24 PM

Shannon Paulson, EEP | Faculty Advisor: Larry Karp, ARE Global Ramifications of Degrowth Agricultural Emissions Reduction Policies

# 1:36 PM

**Isabelle Do, EMF+MEB** | Faculty Advisor: Katie Lichter RCNR Faculty Sponsor: John Battles, ESPM Protecting Access to Cancer Treatment in Fire-Prone Areas: Evaluating Community Wildfire Protection Plans' Considerations

# 1:48 PM

**Isabelle Do, EMF+MEB** | Faculty Advisor: Kevin Tran **RCNR Faculty Sponsor: Benjamin Williams, PMB** Epigenetic Engineering Overrides a Key Regulator of Arabidopsis Chlorophyll Productin and **Flowering Time** 

# 2:00 PM

Jacqueline Ramos, CRS | Faculty Advisor: Patina K. Mendez, ESPM The Effects of Recreational Activities of Campgrounds on the Water Quality of Freshwater **Ecosystems** 

# 2:12 PM

**Tessa Auer, ES** | Faculty Advisor: Yocelyn Villa | RCNR Faculty Sponsor: Whendee Silver, ESPM Carbon Fractions in Composts of Differing Chemical Compositions

# 2:24 PM

Louis Cimmino, EMF | Faculty Mentor: Robert York, ESPM Variation in Mixed-Conifer Seedling Performance Across Post-Wildfire Reforestation Treatment Types at Blodgett Forest Research Station

## 2:36 PM

**Jillyan Tang, MEB** | Faculty Advisor: Eileen Lacey RCNR Faculty Sponsor: Rosemary Gillespie, ESPM Activity Patterns in Captive Colonial Tuco-Tucos (Ctenomys sociabilis)

## 2:48 PM

**Emily Banno, MEB** | Faculty Advisor: Kendall Calhoun | RCNR Faculty Sponsor: Christopher Schell, ESPM

Bird Species Richness and Abundance Across an Urban Gradient

-----BRFAK------

## 3:12 PM

**Tyler Misraje, MEB** | Faculty Advisor: Robert Dudley | RCNR Faculty Sponsor: Todd Dawson, ESPM

Metabolic Effects of Myo-Insoitol on Anna's Hummingbirds

## 3:24 PM

**Rachel Wong, CRS** | Faculty Advisor: Kipling Will, ESPM Seeing Spots and Chasing Dots: Coccinellidae Diversity in the Diablo Range, California, USA <u>3:36 PM</u> Blanca Seiter, CRS | Faculty Advisor: Kipling Will, ESPM Differences in Breeding Condition of Marked and Unmarked California *Pterostichines* in the Subgenus Hypheres (Coleoptera: Carabidae)

<u>3:48 PM</u>

**Sainjargal Uuganbayar, NST** | Faculty Advisor: Zachary Knight RCNR Faculty Sponsor: Andreas Stahl, NST Regulation of Food Intake During the Ovarian Cycle

<u>4:00 PM</u>

**Maggie Cheng, NST; MCB** | Faculty Advisor: Marc Hellerstein, NST Effects of Obesity and Insulin Resistance on Skeletal Muscle Proteome Dyanamics

<u>4:12 PM</u>

**Xinyin Lu, GPB; Philosophy** | RCNR Faculty Sponsor: Benjamin Blackman, PMB Adeno-associated Virus (AAV) VP1u Exhibits Transcription Activation Activity

-----END OF DAY------

# Symposium Judges:

Kathleen Ryan, PMB, Sofia Villas-Boas, ARE

Thanks & special acknowledgement to Sofia Villas-Boas and Jay Sevilla for their organization and contributions to the RCNR Honors Research Program.

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