

# ORAL PRESENTATIONS

## SESSION I: MATHEMATICS, MODELING, AND BIOLOGY

TIME: 9:15AM-10:25AM

ROOM: CLCC299

CHAIRPERSON: Herbert Wildey

**9:15AM-9:25AM**

**\*HANDS ON ABSTRACT ALGEBRA**

Ethan L. Pierson and Frank S Marfai (Phoenix College, Phoenix, AZ)

**9:25AM-9:35AM**

**COMPARISON OF MACHINE LEARNING ALGORITHMS AND CONVENTIONAL REGRESSION MODEL TO PREDICT VALLEY FEVER IN ARIZONA**

Demalesh Areda (Ottawa University, Surprise, AZ)

**9:35AM-9:45AM**

**\*CLASSIFYING BRAIN TUMORS WITH MACHINE LEARNING**

Briana Mariah Gomez, Nadir Babiker, Jesus Martinez, Juan Armando Vidaurrezaga Chavez, Frank S. Marfai (Phoenix College, Phoenix, AZ)

**9:45AM-9:55AM**

**\*SINGING PLANTS: THE EFFECTS OF MUSIC ON GROWTH RATE OF JALAPEÑO (*CAPSICUM ANNUUM*) AND TOMATO (*SOLANUM LYCOPERSICUM*)**

Schelby Greene and Demelash Areda (Ottawa University, Surprise, AZ)

**9:55AM-10:05AM**

**TOWARD AN EXPLANATORY MODEL OF SEA TURTLE NESTING**

Sheila Miller Edwards (Arizona State University, Glendale, AZ)

**10:05AM-10:15AM**

**\*NEUROGRAPH: DISCOVERING AMYOTROPHIC LATERAL SCLEROSIS BIOMARKERS & THERAPEUTICS USING GRAPH NEURAL NETWORKS**

Samarth Dunakhe (Arizona College Prep High School, Chandler, AZ), Arnav Sharma (CortexPD Labs, Troy, MI), Aryav Das (CortexPD Labs, Troy, MI), and Pranav Kulkarni (UC Davis, Davis, CA)

**10:15AM-10:25AM**

**COMPARATIVE MOLECULAR LANDSCAPE GC-MS ANALYSIS OF COMMON ESSENTIAL OILS**

Scott Donnelly (Arizona Western, Yuma, AZ)

# ORAL PRESENTATIONS

## SESSION II: PALEONTOLOGY

TIME: 11:45AM-12:45PM

ROOM: CLCC299

CHAIRPERSON: Herbert Wildey

**11:45AM-11:55AM**

**DEVONIAN DEATH STRANDING: OVERVIEW OF AN ARMORED FISH BONEBED NEAR PAYSON, ARIZONA**

Grant Boardman (Arizona Museum of Natural History, Mesa, Arizona; Brightmont Academy, Scottsdale, Arizona)

**11:55AM-12:05PM**

**A-MUSING: FINDING INSPIRATION IN THE HOUSE OF THE MUSES**

Brian Curtice and Robert McCord (Arizona Museum of Natural History, Mesa, AZ)

**12:05PM-12:15PM**

**\*SMALL-FOOTPRINT, LOW-COST DIGITAL EDUCATION AND SCIENTIFIC OUTREACH METHODS FOR PALEONTOLOGY ON PUBLIC LANDS**

Benjamin F. Mohler (University of Arizona, Tucson, AZ)

**12:15PM-12:25PM**

**GIS METHODS EMPLOYED IN PALEONTOLOGICAL FIELD WORK OF THE CAMPANIAN MENEFE FORMATION, NORTHWEST NEW MEXICO**

Merlyn Heck (Southwest Paleontological Society, Mesa, AZ), Heather F. Smith (Midwestern University, Arizona State University, Tempe, AZ), Benjamin F. Mohler (University of Arizona, Tucson, AZ), Harrison Brand (Southwest Paleontological Society, Mesa, AZ), Brent Adrian (Arizona State University, Tempe, AZ)

**12:25PM-12:35PM**

**\*THE CASE FOR RIGHT-HANDED THEROPODS: PALEOPATHOLOGIES OBSERVED ON SPECIMENS OF ALLOSAURUS FROM THE MORRISON FORMATION REINFORCE THE HYPOTHESIS OF LATERALITY IN THEROPOD DINOSAURS**

Brandon A. Nguyen (Arizona State University, Tempe, AZ)

**12:35PM-12:45PM**

**AVIAN DINOSAUR TRACKS FROM THE CRETACEOUS CABULLONIA GROUP, SONORA, MEXICO OR IF IT WALKS LIKE A DUCK, IS IT A DUCK?**

Robert McCord (Arizona Museum of Natural History, Mesa, AZ)