

Undergraduate Platform Award Winners
95th Annual Meeting of the South Carolina Academy of Science
March 25, 2023

ORAL SESSION 1: ASTRONOMY AND PHYSICS

Filippo Savoia, College of Charleston
TILTED ACCRETION DISKS IN ULTRA-LUMINOUS X-RAY SOURCES
Mentor: Chris Fragile

ORAL SESSION 2: CELL BIOLOGY AND HEALTH

Owen R. Smith, Coastal Carolina University
DEVELOPING A SAFE AND EFFECTIVE PAPILLOMAVIRUS SCREEN TO BE USED ON
COLLEGE STUDENTS
Mentor: Paul E. Richardson

ORAL SESSION 3: FIELD BIOLOGY AND ENVIRONMENTAL SCIENCE

Catherine Waggoner, College of Charleston
GROWTH, ALLOMETRY AND THE DEVELOPMENT OF FLIGHT PERFORMANCE IN THE
ADULT STALK-EYED FLY, *Teleopsis dalmanni*
Mentor: Jason Vance

ORAL SESSION 4: COMPUTER SCIENCE

Matthew Russell, Christopher Teelon, Joseph Johnson, and Andrew Reed
University of South Carolina Aiken
INTRODUCING THE ISOTOPE DISCOVERY ACTIVITY
Mentor: Bethany Fralick

ORAL SESSION 5: ENGINEERING

Maggie Marte, Clemson University
RAPID CRYOGENIC CHARACTERIZATION OF THIN-FILM MATERIALS FOR QUANTUM
COMPUTING APPLICATIONS
Mentor: Kasra Sardashti

POSTER SESSION: MATH AND STATISTICS

Jensen Meade, Coastal Carolina University
AN ANALYSIS OF THE SEQUENCE $X(N+2) = IMX(N+1) + X(N)$
Mentor: David Duncan

POSTER SESSION: ASTRONOMY AND PHYSICS

Lili Boss, College of Charleston
USING LIQUID NITROGEN CAPTURE METHODS TO ASSESS DROP-SIZE-DISTRIBUTIONS
ACROSS MULTIPLE NATURAL RAIN EVENTS
Mentor: Michael Larsen

POSTER SESSION: MOLECULAR BIOLOGY

Kyla Thomas, Matthew Defreitas and Jackie Gould, Coastal Carolina University
SYSTEMATIC ANALYSIS OF BACTERIOPHAGE GENE TOXICITY
Mentor: Daniel Williams

POSTER SESSION: FIELD BIOLOGY AND ENVIRONMENTAL SCIENCE

Hailey Oldfield, Coastal Carolina University
ENVIRONMENTAL BACTERIOPHAGE PRESENCE IN THE DRAINAGE PONDS AT COASTAL
CAROLINA UNIVERSITY
Mentor: Paul E. Richardson

POSTER SESSION: CHEMISTRY AND BIOCHEMISTRY

Zarah Fowler, Finn Rose and Gabriela Pérez Alvarado, Coastal Carolina University
Sasha Bronovitskiy, Georgia Institute of Technology
IDENTIFICATION OF A SMALL REGULATORY RNA USPS ASSOCIATED WITH THE
UNIVERSAL STRESS PROTEIN IN *Lactobacillus* SPECIES
Mentor: Brian Lee

POSTER SESSION: PHYSIOLOGY, HEALTH, AND EXERCISE SCIENCE

McKinley Antley, College of Charleston
DIMENSIONS OF MUDDY BROWN GRANULAR CASTS AND ANTHROPOMETRICS IN
PATIENTS WITH ACUTE TUBULAR INJURY
Mentor: Michael Janech

POSTER SESSION: CELL BIOLOGY

Zara Lacera, University of South Carolina Aiken
HOMOLOGY-BASED OPTIMIZATION OF THE PONG TRANSPOSASE PROTEIN
Mentor: C. Nathan Hancock

GRADUATE POSTER SESSION

Prakrit Subba, Clemson University
DNA METHYLATION OF GENES ENRICHED IN CELL ADHESION AND SYNAPTIC PLASTICITY IS
CORRELATED WITH THE HABITUATION OF SONG RESPONSE IN ZEBRA FINCHES
Mentor: Julia George

2023 DWIGHT CAMPER OUTSTANDING UNDERGRADUATE RESEARCH AWARD

Amanda Manea
University of South Carolina
Mentor: Dr. Swapan K. Ray