

OUTSTANDING STUDENT AWARDS

84TH ANNUAL (VIRTUAL) MEETING OF FLORIDA ACADEMY OF SCIENCES

FRIDAY, MARCH 19, 2021

BETHUNE COOKMAN UNIVERSITY, DAYTONA BEACH, FL

Sections of the Florida Academy of Sciences may recognize student presenters at annual meetings of the Senior Academy for outstanding oral and poster papers and for honorable mentions. In addition to sectional recognition, the Awards Committee may make Academy-wide student awards based on nominations from the chairs of its 14 sections. Paper awards granted to student presenters at the 84th Annual (Virtual) Meeting are listed below.

Sectional Awards

ATMOSPHERIC AND OCEANOGRAPHIC SCIENCES (AOS)

Outstanding Oral Paper, Undergraduate (First Position)—Amanda Capuano, Florida

Institute of Technology, “AOS-03: Investigating the significance of silica in shaping a phytoplankton bloom in the Indian River Lagoon, Florida.”

Outstanding Oral Paper, Undergraduate (Second Position)—Lauren Albury, Bethune

Cookman University, “AOS-04: Zooplankton density in dragline ditch marsh sites compared to natural waterways.”

Outstanding Oral Paper, Graduate (First Position)—Connor Wang, Florida Institute of

Technology, “AOS 02: Monitoring the Progression of a Synechococcaceae Cyanobacteria Bloom in the Indian River Lagoon, Florida.”

Outstanding Oral Paper, Graduate (Second Position)—Rachael Stark, Florida Institute of

Technology, “AOS 06: Ecology of Benthic Mollusks in Estuarine Sediments with

High Organic Content.”

Outstanding Poster Paper, Undergraduate (First Position)—Mario Watson, Bethune-Cookman University, “AOS P05: Impacts of environmental variables on the spatial and temporal variation of syngnathid populations within the Indian River Lagoon (IRL), FL.”

Outstanding Poster Paper, Graduate (First Position)—Jennifer Spain, Bethune Cookman University, “AOS P03: Comparing recruitment patterns between oyster bags and oyster core modules”

Outstanding Poster Paper, Graduate (Second Position)—Cierra Braga, Florida Institute of Technology, “AOS P04: Altered Behavior in Sharks & Rays: Do Ecological Engineering Projects have the Potential to Impact these Elasmobranchs?”

BIOLOGICAL SCIENCES (BIO)

Outstanding Oral Paper, Undergraduate (First Position)—Lucas de Olivera, Indian River State College, “BIO-05: Improving Annotation through *in-silico* Validation of the Circadian Rhythm Pathway in *Diaphorina citri*.”

Outstanding Oral Paper, Undergraduate (Second Position)—Brittany M. Small, University of Tampa, “BIO-15: The use of *Staphylococcus aureus* and MRSA as an Indicator of Human Pollution in Tampa Bay.”

Outstanding Oral Paper, Graduate (First Position)—Rachel Sales, Florida Institute of Technology, “BIO-12: Ecological Legacies of Pre-Columbian Humans in Andean Forests.”

Outstanding Oral Paper, Graduate (Second Position)—Eloise J. Cave, Florida Institute of Technology, “BIO-10: Measuring Adaptation to Habitat Variability Using Shark

Immunogenetics.”

Outstanding Poster Paper, Undergraduate (First Position)—Jacqueline Williams, Indian River State College, “BIO-P04: Isolation of *Vibrio Coralliilyticus Bacteriophages* from Florida Seawater.”

Outstanding Poster Paper, Undergraduate (Second Position)—Emily Hutchinson, Southeastern University, “BIO-P09: Infrared Characterization of Biofuel Extract from Cultured Alga *Synedra*.”

Outstanding Poster Paper, Undergraduate (Second Position)—Osbaldo Cisneros, South Florida State College, “BIO-P08: TGF β family receptors ACVRL-1, TGF β R-I and Endoglin are expressed on human endothelial cells.”

COMPUTER SCIENCES AND MATHEMATICS (CMS)

Outstanding Oral Paper, Graduate (First Position)—Trupti Mahendrakar, Florida Institute of Technology, “ENG-04: Effect of Recycled Liquid Waste on Hydrothermal Characterization Process.”

ENGINEERING SCIENCES (ENG)

Outstanding Oral Paper, Undergraduate (First Position)—Alan Longfellow, Florida Polytechnic University, “ENG-03: Methods of Analytical Solution of the Incompressible Navier-Stokes Equations in Two Dimensions.”

Outstanding Oral Paper, Undergraduate (Second Position)—Jacob Atkins, Embry Riddle Aeronautical University, “ENG-06: Unmanaged Aerial Robot Navigation for Exploring Unknown Environments using Reinforcement Learning.”

Outstanding Oral Paper, Graduate (First Position)—Al Ibtida Sultana, Florida Institute of Technology, “ENG-05: Upcycling Food Waste into Biosorbents and its Application on Sustainable Energy Storage.”

Outstanding Oral Paper, Graduate (Second Position)—Md Tahmid Islam, Florida Institute of Technology, “ENG-04: Effect of Recycled Liquid Waste on Hydrothermal Carbonization Process.”

Outstanding Poster Paper, Undergraduate (First Position)—Daniil Ivannikov, Florida Polytechnic University, “ENG-P02: Color Chromaticity Measurements of Thermochromic Materials.”

Outstanding Poster Paper, Undergraduate (First Position)—Marildi Hibo, University of South Florida, “ENG-P01: Evaluation of Thermal behavior of Thermochromic Coatings for Energy Efficient Buildings.”

Outstanding Poster Paper, Graduate (First Position)—Mohammad Shakhawat Hossain, University of South Florida, “ENG-P07: Sensitivity and Selectivity Test of a Novel Perovskite Gas Sensor under Varying Illumination Level and Geometric Orientation.”

Outstanding Poster Paper, Graduate (Second Position)—Caroline Elwell, Florida Institute of Technology, “ENG-P03: The Comparison of Biofouling on Geotextiles for Marine Applications.”

ENVIRONMENTAL AND CHEMICAL SCIENCES (ENV)

Outstanding Oral Paper, Undergraduate (First Position)—Jessica Echevarria, Southeastern University, “ENV-01: Efficient Synthesis of Chloroacetylene a Crucial Synthetic Intermediate for Efavirenz using Chlorinating Reagents (PCl_5 and Ph_3PCl_2).”

Outstanding Oral Paper, Graduate (First Position)—Muzammil M.N. Ahmed, Florida Institute of Technology, “ENV-02: Novel Electrochemical Sensor for Real-time Detection of Cd (II) in aqueous samples”

MEDICAL SCIENCES (MED)

Outstanding Oral Paper, Undergraduate (First Position)—Sarah Fontana, Southeastern University, “MED-03: A Conceptual Study on the Effect of Plant-based Diet on the Reduction of State-3 Glioblastoma in Patients using Temozolomide.”

Outstanding Poster Paper, Undergraduate (Second Position)—Claire Monroe, Southeastern University, “MED-04: A Conceptual Study on the Possible Effects of Stromal Vascular Fraction Stem Cell Treatment in Patients with Chronic Migraines and Tension Headaches.”

Outstanding Poster Paper, Graduate (First Position)—Vania Arboleda, Nova Southeastern University, “MED-02: Designer Dissections: Tailor-Made for a Career in Anatomical Sciences and Healthcare Professions Post-Covid-19 Pandemic.”

Outstanding Poster Paper, Undergraduate (First Position)—Hilario Gomez, Southeastern University, “MED-P09: Effect of Sensory Deprivation Tank Therapy on Cortisol Levels of Glioblastoma patients: A Conceptual Framework.”

Outstanding Poster Paper, Graduate (First Position)—Melyse Laud, Florida Institute of Technology, “MED-P02: Detection of Neurotransmitters with a Novel, Multi-bore Carbon Fiber Microelectrode.”

Outstanding Poster Paper, Graduate (Second Position)—Sawyer Bawek, Darya Bondarenko, Jenna Mamatov, Madison Panell, Katelyn Schulz, Lake Erie College of Osteopathic

Medicine (LECOM), “MED-P04: Extraction and Fractionation of Lung Cancer Biomarkers in Exhaled Breath Condensate”

PHYSICS AND SPACE SCIENCES (PSS)

Outstanding Oral Paper, Undergraduate (First Position)—Adam Dressel, Dory Mauretou, Embry Riddle Aeronautical University, “PSS-02: A Python Tool for Stellar Rotation Period Determination from Astronomical Light Curves”

Outstanding Oral Paper, Graduate (First Position)—Anthony Ore, Embry Riddle Aeronautical University, “PSS-03: The Constraints on the Cosmological Model’s Parameters under $H(z)$ data and their Sensitivity with the prior H_0 .”

Outstanding Oral Paper, Graduate (Second Position)—Merrick Lavinsky, Florida Institute of Technology, “PSS-01: The Quality control Procedure of the CMS GE2/1-M5 GEM Detector.”

Outstanding Poster Paper, Undergraduate (First Position)—Minh Le, Florida Institute of Technology, “PSS-02: There and Back Again: The Orbital Journey of 34 Persei.”

Outstanding Poster Paper, Graduate (First Position)—Anthony Ore, Embry Riddle Aeronautical University, “PSS-01: The Constraints on the Cosmological Model’s Parameters Under $H(z)$ data and their sensitivity with the prior H_0 ”

SCIENCE TEACHING (TCH)

Outstanding Poster Paper, Undergraduate (First Position)—Amy Davis, Florida Institute of Technology, “TCH-P01: Deep Sea Organisms: A Short Educational Video.”

Outstanding Poster Paper, Undergraduate (Second Position)—Amesti Vega, Florida Institute

of Technology, “TCH-P03: A Call-to-Action for Youth in Shark Conservation and
Advocacy: An Educational Video.”

Compiled by

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FAS Awards Committee Chair

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