

2024 ERN Conference in STEM
 Washington, D.C. – March 14-16
 901 Massachusetts Ave NW, Washington, DC 20001
 Graduate Oral Presentation Schedule

Oral Presentation Session 1: Friday, March 15 (10:00am – 12:00pm)
 Oral Presentation Session 2: Friday, March 15 (4:00pm – 6:30pm)
 Oral Presentation Session 3: Saturday, March 16 (8:00am – 10:30am)
 Oral Presentation Session 4: Saturday, March 16 (11:00am – 12:30pm)

Session #	Room Location	Author Name	Abstract Title	Institution	Abstract ID #:
1	Eastern Market	Nabras Abdulrahman	Up-regulation of E2F Transcription Factors as evidence of Their Roles in Triple Negative Breast Cancer (TNBC).	Texas Southern University	1
1	Eastern Market	Lia Banks	Analysis of BEST-1 Gene Variants in Cataract Development and Vision	Oakwood University	2
1	Eastern Market	Dr. Sulakshana Bhatt (Postdoctoral Research Associate)	Effect of High-Density Polyethylene Microplastics on the Survival and Development of Eastern Oyster (<i>Crassostrea virginica</i>) Larvae	Morgan State University	3
1	Eastern Market	Alisha R. Kennedy	Biological Activity of Novel Azolium-Based Therapeutics against TDP-43-Mediated-Toxicity in Transfected Normal Neuronal and Carcinoma Cell Lines	Columbus State University	4
1	Eastern Market	Kenneth C. Lindsley	In Silico Analysis to Identify Pathways Associated with Functional Recovery post Spinal Cord Injury	Rutgers University	5
1	Eastern Market	Mary Jean Savitsky	3D Expansion of Hepatocytes Using Novel Microfiber Cell Carriers for Bioprinting Applications	FAMU-FSU College of Engineering	6
1	Eastern Market	Philip J. Yeboah	Developing A Sweet Potato Base Medium for the Growth and Cultivation of <i>Lactobacillus</i>	North Carolina A&T State University	7

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1	Eastern Market	Dawn Bordenave	Fabrication and Design of Anti-Occlusion Ventricular Catheters for Treatment of Hydrocephalus	Harvard University	8
1	Eastern Market	Lauren Morton	In vitro Somatic Embryogenesis and Plant Regeneration in Alfalfa (<i>Medicago sativa</i> L.) Leaf Explants	Fort Valley State University	9
1	Woodley Park	Estefania Armendariz-Gonzalez	New Organocatalysis Reactions to Construct Diaryl Quaternary Centers	Louisiana State University	10
1	Woodley Park	Angela Cruz	Development of Macroalgae-Based Skincare Formulations for Extreme Temperature Conditions	University of Puerto Rico Rio Piedras Campus	11
1	Woodley Park	Kadeem Hayes	Deep Ultraviolet Laser Ablation and Capture for Native Protein Mass Spectrometry	Louisiana State University	12
1	Woodley Park	Samaiyah K.A. Mason	Determining the Effect of Polar Aprotic Solvents on the Molecular Weights of Phenolphthalin Based Poly(Arylene Ether Sulfone) Homopolymers	Florida A&M University (FAMU)	13
1	Woodley Park	Jeremy A. Rodríguez Vargas	Synthesis, characterization and biological activity assay of azo dyes and the implementation of new undergraduate biochemistry laboratory	University of Puerto Rico at Rio Piedras Campus	14
1	Woodley Park	Raquel Feliciano Crespo	Cardiac Troponin I detection using Screen Printer Electrodes modified with Sulfonated Styrene-Isobutylene-Styrene (SIBS) Block Copolymer.	Department of Chemical Engineering, University of Puerto Rico, Mayaguez, PR, USA	15

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1	Woodley Park	Ta`Veion Taylor	Comparative Analysis for Testing Conductivity of Polymer-Electrolyte Blends for Use in Lithium-Air Batteries	Clark Atlanta University	16
1	Woodley Park	Normanda Brown	Green Mechanochemical Synthesis of Imine Linked Covalent Organic Frameworks for High Iodine Capture	Clark Atlanta University	84
1	Woodley Park	Allea Campbell	Dioxin-Linked Covalent Organic Framework-Supported Palladium Complex for Rapid Room-Temperature Suzuki–Miyaura Coupling Reaction	Clark Atlanta University	87
1	Scarlet Oak	Adalberto Mulero Martinez	Characterizing Bacteria Resistant to Atmospheric Stressors and Antibiotics Collected During June-August 2023, in Relation to Sahara Dust Events.	InterAmerican University of Puerto Rico, Metropolitan Campus, San Juan	32
1	Scarlet Oak	Dianeliz Ortiz Martes	Modeling and Prediction of Sandstorms in Africa using Climate Factors	Florida Institute of Technology	33
1	Scarlet Oak	Sara Rostampour	Changes in the chemical composition of polyethylene terephthalate under UV radiation	Morgan State University	34
1	Scarlet Oak	Kaitlyn Smith	Evaluation of Wetland Treatment to Improve Discharge to Baffin Bay	Texas A&M University - Kingsville	35
1	Scarlet Oak	Tameka Taylor	Unveiling Microplastic Pollution: Insights from the Chesapeake Bay Summer 2023 Study	Morgan State University	36
1	Scarlet Oak	Raisa De Jesus Torres, University of	Macro-Algae Biocarbon's Membrane for the remediation of Pollutants in Soil	University of Puerto Rico- Rio Piedras	37

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		Puerto Rico-Rio Piedras			
1	Scarlet Oak	Janyl Madykova	Impacts of Pavement Condition on Fine Sediment Particle Load in Roadway Stormwater Runoff	Texas Southern University	38
1	Gallery Place	Christian D. Del Valle-Colón	Tip60 histone acetyltransferase regulates PDF neuropeptide expression and alcohol-tolerance acquisition in <i>Drosophila melanogaster</i>	University of Puerto Rico, Río Piedras Campus, San Juan PR	53
1	Gallery Place	Nanki Chugh	Investigating Neural Dynamics Between Conductor and Pianist During Live Music Performance	Rice University	54
1	L'efant Plaza	Maria M. De Jesus	Examining student understanding of sex and gender in undergraduate biology	Auburn University	62
1	L'efant Plaza	Kristen Hallas	Sociocultural Factors Influencing Latinas' STEM Trajectory at a Hispanic-Serving Institution (HSI)	University of Texas Rio Grande Valley	63
1	L'efant Plaza	Cady Barbour	Dueling Contexts: Examining the lived experiences of Black undergraduate Engineering majors transitioning from an HBCU to a PWI	Clark Atlanta University	64
1	L'efant Plaza	DeAndre Bradley	Establishing Evidence-Based Cybersecurity Policies for Modern Employees with the Simulated Cybersecurity Application	Norfolk State University	65
1	L'efant Plaza	Emma Quarles, B.S.	Associations Between Personality Traits and Objective Executive Function in Undergraduate Students	Virginia State University	66

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2	Chinatown	Noura Abdulrahman	Reactive Oxygen Species Production and Caspase 1 Activation Due to Indoor Dust Exposure in CCD841 Human Colon Cells	Texas Southern University	24
2	Chinatown	Robert Breininger	Modeling algal blooms using climate factors	Florida Institute of Technology	25
2	Chinatown	Daniel Breininger	An Exploratory Study to Implement a Predictive Model for Sandstorms in the Southwest US	Florida Institute of Technology	26
2	Chinatown	Anthony Brown	Age and growth characteristics of Channel Catfish (<i>Ictalurus punctatus</i>) across a thermal gradient	Columbus State University	27
2	Chinatown	Beyza Nur Guler	Navigating Winds of Change: Key Skills & Training in Offshore Wind Workforce	Virginia Polytechnic Institute and State University	28
2	Chinatown	Trinity Johnson	Assessing Stormwater Flooding in Richmond, VA to Improve Water Quality Monitoring and Management	Louisiana State University	29
2	Chinatown	Mariam Koroma	Chemical Profiling of Treasure House Metabolites of the Medicinal Plant <i>Azadirachta indica</i> (Neem) and Associated Endophytic Microorganisms.	Bowie State University	30
2	Chinatown	Fabian Maldonado	Investigating the Possible Factors Causing the Increase of Salinity Levels in the Carrizo-Wilcox Aquifer, Winter Garden Region.	Texas A&M University Kingsville	31
2	Gallery Place	Norman Burgos-León	Fabrication of Aluminum Welding Fillers Reinforced with Nanoparticles for Aerospace Applications	University of Puerto Rico at Mayagüez	41
2	Gallery Place	Selena Coye	Temperature-Dependent Behaviors of Bandgap, Excitons, Phonons, and Strain in WS ₂	Clark Atlanta University	42

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2	Gallery Place	Rogine Gomez	Understanding Preferential Nucleation During Recrystallization of Highly Textured Magnesium Alloys	The Ohio State University	43
2	Gallery Place	Siedah J. Hall	High Sensitivity Transient Optical Measurements	CUNY Graduate Center	44
2	Gallery Place	John Patrick Harris	Investigation of Aluminum-Doped Zinc Oxide for Potential Smart Optical Applications via J.A. Woollam' s WVASE software: Transparent Substrate Analysis	Norfolk State University	45
2	Gallery Place	Huda Usman	Designing a Magnetically Responsive Polymeric Nanocultures for In Situ Cultivation of Environmental Microbes	Carnegie Mellon University	46
2	Gallery Place	Ashleigh K Wilson	Effect of composition and environment on formation and growth of organic luminescent crystals	Norfolk State University	47
2	Gallery Place	Nithin Krisshna Gunasekaran	Synthesis and Characterization of Cerium Oxide Quantum Dots for Safe Biomedical Applications	Norfolk State University, 700 Park Avenue, Norfolk, Virginia, 23504, USA	48
2	Gallery Place	Kingsley Yeboah Gyabaah	High Performing Shape Memory Regolith Composite for Extra-Terrestrial Application	Southern University and Agricultural & Mechanical College	49
2	Gallery Place	Ayodeji Kuti	“Photovoltaic (PV) Properties From Non-Uniform Light Illuminations of A P-Type Photo Doped Semiconductor”	Norfolk State University	50

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2	Gallery Place	Md Afzalur Rab	Switching Magnetization with illumination in Permalloy Films and Metasurfaces	Norfolk State University	51
2	Gallery Place	Aanesa Watson	Preparation, Processing, and Characterization of Biobased Cellulose Nanocrystals (CNCs)/ Polylactic Acid (PLA) Nanocomposites	Clark Atlanta University	52
2	L'efant Plaza	Uchechukwu Agwu	Analyzing and Testing Bimetallic Additively Manufactured Structures for Tailored Thermal Expansion	Carnegie Mellon University	67
2	L'efant Plaza	Diana Al-Nabulsi	Comparative Analysis of Demand-Responsive Transit Services on System Efficiency	Western michigan university	68
2	L'efant Plaza	Camila S. Cué Royo	Eradicating Candida auris through Physiological Stress and Drug Permeation using Low-Level DCs	Carnegie Mellon University	69
2	L'efant Plaza	Olivia Garcia Ramirez	Characterizing and Quantifying Micro-Nano-Plastics from Sediments and Water in agricultural land	Texas A&M University-Kingsville	70
2	L'efant Plaza	Rubén E. Leoncio Cabán	Effects of solar base distributed generation on Puerto Rico Electrical system.	University of Puerto Rico at Mayaguez	71
2	L'efant Plaza	Kevin Ahmad Moone	Maximizing Energy Harvesting in Flexible NFC Antennas for Wearable Electronics	Norfolk State University, Virginia	72
2	L'efant Plaza	Shekinah Newson	Characterizing range of motion and load-bearing improvement by soft exosuit devices for shoulder and elbow extension during lifting	Harvard University	73

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2	L'efant Plaza	Anayely Saguilan	Study on the Robustness of Fuzzy Controllers under Individual-room Setpoints of a Multi-room Building Testbed	California State University, Los Angeles	74
2	L'efant Plaza	Annie Scutte	Rheological Exploration and Biofabrication of S. Typhimurium-Alginate Hydrogels	FAMU-FSU College of Engineering	75
2	L'efant Plaza	Nathan Stoetzel	Development of a Compact Model for a Natural Convection Loop by Proper Orthogonal Decomposition	California State University, Los Angeles	76
2	L'efant Plaza	David Strickland	Fractional Factorial Design of Experiments for High-Temperature Li-Ion Battery Component Research	California State University Los Angeles	77
3	Woodley Park	Kevin Bennett	Optical studies of tellurium oxide-based glasses embedded with Silver and Samarium	Alabama Agricultural and Mechanical University	55
3	Woodley Park	Orrin Clarke-Delgado	Magnetic Properties of Chiral Magnet BaFeGaO ₄	Norfolk State University	56
3	Woodley Park	Kaylah Breanne McGowan	Kaylah Breanne McGowan Enhancing LIGO's Sensitivity via Detector Characterization & Noise Mitigation	Fisk University	57
3	Woodley Park	Justice Stewart	Gamma Ray Radiation Effects on Newly Discovered CsPbBr ₃ for Room Temperature Semiconductor Detectors	Fisk University	58
3	Woodley Park	Alecia	Laguerre-Gaussian Laser Beam Shaping for Control of Optical Angular Momentum in Ultrafast Laser Spectroscopy of Quantum Materials	Gulledge	60

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3	Woodley Park	Matthew Turner	Crystal Growth of Mixed Crystal Perovskites for Efficient Down Conversion	Norfolk State University	61
4	Farragut North	Carley Brinkley	AI for Space Using Synthetic Data	Fayetteville State University	17
4	Farragut North	Shajiya Fathima	PediDerm - Your child's skin health, at your fingertips.	Morgan State University	19
4	Farragut North	Gabriel A. Santiago Plaza	Visualization of Musical Tension in Salsa	University of Puerto Rico Río Piedras Campus	20
4	Farragut North	Alejandra Tapia Batres	From User Insights to Virtual Reality Wonders: Unveiling Use Cases for the Human Reference Atlas Organ Gallery	Georgia State University	21
4	Farragut North	Amaya McNealey	Race-Neutral Risk Calculator Still Disadvantages Black Patients	Georgia Institute of Technology	22
4	Farragut North	Edmund Robbins	Multi-Sensor Remote Sensing, Geospatial Data Fusion and Big Data with Applications to Global Glacier Recession	Florida Institute of Technology	23
4	Farragut North	Yashleen Sharma	Analysis of Ocean Currents by Advection Diffusion Equation	San Francisco State University	40
4	Eastern Market	Jonesha M. Turner	Design and Fabrication of Supercritical Fluid CO2 Extraction Chamber	Southern University and A&M College	78
4	Eastern Market	Enoch Kofi Ameyaw	Digital Light Projection, Reconfiguration of a 3D printer to print in the critical dimension.	Southern University A&M College	79

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4	Eastern Market	Ebenezer Ashimolowo	The Role of Varying the Bulk Temperature on Rayleigh-Bénard Cell Formation for the Design of the Planetary Cloud Aerosol Research Facility	Southern University and A&M College, Baton Rouge, LA	80
4	Eastern Market	Ivana Barley	Computational Analysis of Rayleigh-Bénard Convection in an Enclosure: A Comparative Study of Nitrogen Gas and Carbon Dioxide	Southern University and A&M College	81
4	Eastern Market	Emmanuel essel	Field Programmable Gate Array (FPGA)-accelerated plant disease detection using YOLOv8	Southern University and A & M College	82
4	Eastern Market	Edem Doe Honu	Effects of Low-temperature Heat Treatment on Mechanical and Thermophysical Properties of Cu-10Sn Alloys Fabricated with Laser Powder Bed Fusion.	Southern University and A & M College	83
4	Eastern Market	Mark Swift II	Construction and Modeling of a Z-Scan System for Ultrashort Pulse Laser Spectroscopy	Norfolk State University	85
4	Eastern Market	Felix Kimeu	Modeling of Dynamic coupling of Surface Plasmon Polaritons Using Surface Acoustic Waves	Norfolk State University	86

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