

2018 ERN Conference in STEM
 Undergraduate Student Oral Presentation Schedule*
 Washington, DC | February 22-24, 2018

Session 1: Friday, February 23rd | 10:00am - 12:15pm
 Session 2: Friday, February 23rd | 4:00pm - 6:30pm
 Session 3: Saturday, February 24th | 8:00am - 10:30am
 Session 4: Saturday, February 24th | 11:00am - 12:30pm

Session #	Room	Undergrad Oral Abstract #	Primary Author First Name	Primary Author Last Name	Abstract Title
1	Marriott Balcony B	64	Mahaa	Ahmed	Detection of Pathogenic E. coli in Environmental Samples from Rural Bangladesh
3	Delaware A	23	Jonathan	Aldana	Computational Design and Simulation of a Cyclized Dimeric Multipass Transmembrane Protein
2	Virginia C	97	Juan	Alejandre	Using Isochrone Maps to Assess and Visualize the Impact of California's High Speed Rail on Regional Accessibility
3	Delaware B	22	Sheevah	Amen	Does the Insect Gut Microbiome Effect Plant Volatile Release?
1	Virginia C	105	Messan	Anato	Performance Study of Mining and Forecasting of Big Time Series Data
3	Virginia C	114	Adaugo	Anyamele	SAVER Project Final Report
2	Park Tower 8216	65	Amos	Anzele	Gauging Marketing Strategies with Twitter Users' Brand Perception: a Case Study of Tesla
1	Marriott Balcony B	63	Mayla	Ayers	PCH1 Regulates Thermoresponsive Growth in Arabidopsis thaliana
2	Park Tower 8216	66	Carissa	Babcock	Competition and (1,2)-Step Competition Numbers in 4-Cycle Graph Variations
4	Delaware A	35	David	Barnes	Exploration of Transition Metal Complexes Bearing Naphthalene Diimide (NDI) Based Ligands
3	Delaware A	24	Ja'Nautica	Bee	Spectroscopic and Molecular Modeling Studies on a Novel Fluorescence Sensor
3	Virginia C	92	Bazit	Bisiolu	Multi-wavelength Analysis of Galaxy Cluster Assembly
3	Delaware A	25	Allison	Black	Expression of Neuroimmune Genes Upon Treatment with Ethanol & Cannabinoids in Microglial Cells

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1	Virginia C	106	Christopher	Blake	Viable Mars Entry, Descent, and Landing Trajectories
2	Marriott Balcony B	51	Dwight	Bland	Population Growth of <i>Philodina</i> sp. (Rotifera) Subjected to Three Temperature Regimes
1	Virginia C	107	Christopher	Blanks	Designing Fractal Supercapacitors
4	Park Tower 8216	88	Carolanne	Briscoe	The Relationship Between Parenting Styles and Social-Emotional Development in Afro-Caribbean Adolescents
2	Marriott Balcony A	82	Abasi	Brown	Development of Muon Veto System for 185-kg NaI[Tl] Detector
2	Virginia C	93	Nettie	Brown	Chitosan-Impregnated Bacterial Cellulose for Medical Applications
3	Delaware B	11	Victoria	Buskey	Thermal Preference of High and Low Elevation Slevin's Bunchgrass Lizards, <i>Sceloporus Slevini</i>
3	Delaware B	12	Shericia	Campbell	Rate of Heat Absorption in <i>Sceloporus Slevini</i> , Slevin's Bunchgrass Lizard
4	Park Tower 8216	86	Chazman	Childers	Translating Complex Research into an Accessible Educational Tool for Undergraduate Students
4	Virginia A	42	Sebastian	Cousins	Large-scale Workload Characterization in Apache Spark Framework
1	Marriott Balcony B	58	Kali	Coxe	Sustainability at North Carolina Central University
2	Park Tower 8216	67	Michelle	Coyle	A Large Scale Parameter Study using kPCA in Hyperspectral Imagery
3	Delaware B	13	Mariby	Cruz	Analysis of Tropical Tree Growth: Validation of Growth Simulation, a Stochastic Bootstrapping Model

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1	Marriott Balcony B	50	Ashley	Davis	Carbonate Saturation Horizons in the Northwestern Hawaiian Islands: Implications for Deep-Sea Corals
1	Park Tower 8228	72	Ana	De La Fuente Duran	Indium Intercalation Through Epitaxial Graphene
2	Virginia C	94	Pablo	Diaz	Dynamics of Active Particles Near a Curved Wall: Guided and Trapped Locomotion
2	Marriott Balcony A	76	Brianna	Donaldson - Morton	Comparing EEG, EMG, EOG, and ECoG Techniques to Create a Working Neurological Prosthetic
3	Delaware B	7	Francisca	Donkor	Investigating the Co-Regulatory Role of Extramacrochaetae and Midline Transcription Factors on Neuronal Cell Fate Specification in Developing Drosophila Eye Tissues
4	Delaware A	40	Taylor	Dorlus	Binding of Histidine and Proline with Graphene in Gas and Aqueous Phases
3	Delaware A	30	Cameron	Earl	Microwave Irradiated Oxa-Michael Addition: A Modular Liquid Crystal Elastomer System
3	Delaware A	31	Caria	Evans	Design and Synthesis of Electron Acceptors with Varying Electron Affinity
4	Park Tower 8216	89	Oacia	Fair	Challenges of Food Security Among Pastoralists in Naitolia
2	Marriott Balcony B	52	Tori	Farrow	The Urban Heat Island in Detroit, Michigan: Environmental Change and the Human Condition
2	Mica/Slate/Granite	4	Sojourna	Ferguson	Isolation and Characterization of Activated Stromal Cells in Breast Cancer
3	Virginia C	118	Candice	Forrester	Optical Analysis of II-VI/III-V Hybrid Quantum Cascade Detectors
2	Park Tower 8216	68	Matthew	Gallatin	Using Statistics to Analyze and Compare X-Ray Diffraction Patterns

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4	Virginia A	43	Briana	Gardner	Ethical Hacking: A Tool for the Criminal Justice System
1	Marriott Balcony B	59	D'Andre	Garrison	Non-invasive Identification of Unmarked Burial Sites at Frankfort Cemetery using LiDAR and Ground Penetrating Radar
1	Virginia C	108	Desiree	Goffigan	Smart Grid for Charging PEV
2	Mica/Slate/Granite	16	Estrella	Gutierrez	Identification of Markers Contributing to White Mold Resistance in Peanut Using Quantitative Trait Loci Sequencing
2	Marriott Balcony A	79	Francisco	Guzman	Fabricating High-quality Ultra-thin Croconic Acid Film Using Electric Field Guidance
3	Delaware A	26	Terrance	Haanen	Next Generation Splice Modulators: Potentially Powerful Tumor Suppressors
2	Marriott Balcony A	77	Danial	Haei Najafabadi	Mechanical Exfoliation and Dry Transfer of 2D Materials
2	Mica/Slate/Granite	5	Sydnei	Hall	Lignin as a Novel Targeted Therapy for Breast Cancer
4	Virginia A	44	Ayodele	Hammed-Shobayo	A Cryptographic Simulator for Enhancing Undergraduates' Learning Experience in Cyber Security Education
2	Park Tower 8216	69	Deandria	Harper	Data Analytics for Nitric Oxide Biosensors
1	Virginia C	109	Saul	Henderson	Development of a Novel Semi-Supervised Based Kernel Density Clustering Algorithm
1	Marriott Balcony B	61	Xaimarie	Hernandez Cruz	A Quantitative Approach to Measure Adaptive Capacity to Floods
4	Delaware A	36	Elizabeth	Hitch	The Effect of Synthesis Conditions on the formation and Crystal Structure of Perovskite Oxygen Transport Membranes

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4	Delaware A	37	April	Howard	Bissap Research
4	Virginia A	45	Alysia	Irwin	An Adaptive Region Growing Algorithm for Organ Segmentation Using Homogeneous Discriminative Model
3	Delaware B	8	Curteisha	Jacobs	Screening the Candidacy of Monosodium Glutamate (MSG) as an Addictive Substance in Drosophila Melanogaster
3	Delaware A	32	Whitney	Jenkins	Anti-Cancer Drug Entrapped Zeolite Structures as Drug Delivery Systems
2	Mica/Slate/Granite	1	Alexia	Johnson	In Vitro Characterization of the Gelatin and Liver Extracellular Matrix Based Construct for Wound Dressing
4	Park Tower 8216	90	Gabrielle	Johnson	Colorectal Cancer Screening Intentions in Two Community Settings: Is There a Difference?
2	Mica/Slate/Granite	20	KiAundra	Kilpatrick	The Role of Itaconate in Stroke and Immunometabolism
2	Marriott Balcony B	53	Ashley	Kim	Investigating Hummingbird Foraging Choices in Response to Bee or Ant Cues
4	Delaware A	38	Katherine	Knox	Photosensitive Liquid Crystal Elastomers for Biomedical Actuators
1	Virginia C	110	Keenan	Leatham	Development of a Hybrid Particle Swarm Optimization (PSO) and Evolutional Algorithm (EA) Based Feature Selection Algorithm with LS-SVM Classifier
2	Marriott Balcony B	54	Raven	Lewis	Assessing Exchangeable Soil Nitrogen in Cotton Fields from Different Best Management Practices
2	Virginia C	98	Ryan	Littlejohn	Programming Scorbace Pro
4	Virginia A	46	Darrion	Long	Making Software Engineering Rigorous: Secure Coding for Undergraduate Students

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2	Mica/Slate/Granite	2	Samuel	Lum	A Novel Nanocomposite for Inhibition of Infectious Biofilm on Urinary Catheters Systems
1	Park Tower 8228	75	Nadja	Maldonado Luna	Size-Dependent Quantum Dots Toxicity in Aquatic Models
1	Marriott Balcony B	60	Lucia	Mallozzi	Evidence of Thermal Alteration in CV Chondrite NWA 8418 Provides Unique Insight into Secondary Parent Body Processing
1	Park Tower 8228	73	Sebastian	Manzo	Luminescence Nanothermometry of 2D MoS ₂
4	Virginia A	47	Willie	McClinton	Ad-Hoc Event Kit generation for the TRECVID Multimedia Event Detection Evaluation
2	Marriott Balcony B	55	Trevor	McIntosh	An Assessment of Butterfly Diversity at the Long Island Solar Farm at Brookhaven National Laboratory
2	Virginia C	99	James	McLaurin	Synchronized High-Speed Video and Infrared Thermometry Study of Bubble Dynamics during Nucleate Boiling of Nanoemulsion
3	Delaware B	14	Michelle	McPherson	The Effects of Acidic Rain on an Environment
4	Virginia A	48	Dequan	Medina	A Learning-Based Method for CT Image Segmentation
3	Virginia C	117	Timothy	Medina	Normalized Difference Vegetation Index Satellite Information and Deforestation Influence on Global Food Security
2	Mica/Slate/Granite	6	Tiffany	Merlinsky	Role of CALR Mutations on MPL/JAK Signaling: New Road for Novel Therapies in MPN
3	Delaware B	15	Katherine	Miller	Nonlinear and Asymmetric Responses of Switchgrass Ecosystem Productivity to Precipitation Changes
2	Marriott Balcony A	83	Roshaun	Mitchell-Cleveland	Measuring the Effects of Radiation and Changes in DNA in <i>Caenorhabditis Elegans</i>

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3	Delaware B	9	Amatullah	Muhammad	The Effects of Selenium on Cryopreservation and Sperm Motility
2	Marriott Balcony A	80	Jose	Nicasio	On Potential Turbine Coating Materials Cr0.19Ni0.06Al0.75
3	Virginia C	119	Zuleika	Oquendo	Synthesis and Characterization of Chitosan/TiO2 Composite as a Biocide Material
3	Virginia C	120	Joshua	Orebiyi	Dye Sensitized Solar Cells (DSSC)
2	Marriott Balcony A	84	Jessica	Patel	Characterization of Pb1-xCaxTiO3 Thin Films for Thermal Detectors
2	Park Tower 8216	70	Kristi	Pearley	Determination of the Prediction Values of Technical Indicators
4	Park Tower 8216	91	Vera	Pertsovskaya	The Neurophysiological Basis for the Importance of Borders in Human Color Perception
1	Marriott Balcony B	62	Joshua	Pettibon	Determining the Factors That Shape Cockroach Gut Communities
2	Marriott Balcony A	78	Coby	Pinckney	Virginia Union University Weather Station
2	Marriott Balcony B	56	John	Poole	Conflict of Interest? Investigating the Costs and Benefits of Herbivore Defense Using the Model Plant Boechera Stricta.
1	Virginia C	104	Anthony	Porter	Light weight PEM Fuel Cell
2	Mica/Slate/Granite	19	Natalia	Rangel	Detection of Coccidioides Immitis in Soil Samples Using a DNA and RNA-based Approach
2	Virginia C	100	Jaime	Rios	An Experimental Study on Convective Heat Transfer Characteristics of Nanoemulsion Flowing Through Circular Mini-Channels

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3	Delaware A	33	Julio	Rivera	Functionalization of Quantum Dots and their Toxicity in Biological Systems.
3	Delaware A	27	Brittini	Roye	Tributyltin Acetate as an Inhibitor of the Enzymatic Activity of Papain
2	Mica/Slate/Granite	21	Jelonia	Rumph	Does Oxidative Stress Increase Susceptibility to Bacillus Anthracis Surrogates?
2	Virginia C	122	Sesegma	Rygyzdmaeva	Sensing of Cells and Molecules with Semiconductor Nanowires
2	Marriott Balcony A	81	Erika	Sanchez	Fabrication of High-Quality Croconic Acid Thin Films
3	Virginia C	115	Zachary	Shepard	Iron Nanoparticle Conjugation onto 2D MoS ₂ Nanosheets: Green Synthesis for Environmental Application
1	Virginia C	111	James	Sherman	Development of Photomultiplier Tube Gain Control System
2	Virginia C	101	Christoph	Sieberer-Kefer	Optimal Server Sharing Decisions in Field Services
2	Marriott Balcony B	57	Emily	Silva	Differential Growth of Roots and Shoots in Response to Variation in Canopy Cover in a Tropical Fern Species in Costa Rica
3	Delaware A	28	Yasmeen	Solano	Effects of Antifreeze Protein on Mannitol Crystallization During Freeze-Drying
2	Mica/Slate/Granite	17	Taylor	Soto	Using Mitochondrial DNA to Determine Coyote-Wolf Hybridization in Minnesota and Wisconsin
2	Virginia C	102	Benjamin	Standfield	Using OPC Unified Architecture and MTConnect for Data Acquisition and Upstream Communication
2	Marriott Balcony A	85	Greg	Stewart	Tuning the Poisson's Ratio of Porous Graphene with Defects

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2	Mica/Slate/Granite	3	Ruthie	Stokes	A Vehicle Into the Future
4	Park Tower 8216	87	Marie Janelle	Tacloban	Supporting Educators in Using Primary Scientific Literature in the High School STEM Classroom
4	Delaware A	34	Rickey	Terrell	Structural Characterization of Platinum Alloy Nanoparticle Synthesis using 195-Pt NMR
3	Delaware B	10	Willis	Thomas III	The Effects of Cannabinoid Structure on Planarian Regeneration
2	Mica/Slate/Granite	18	Jiah	Toms	Investigating Dopamine Neuron Genes Linked to Human Disorders
3	Delaware A	29	Sara	Torres Robles	Probing UNC-45:Hsp83 Protein-Protein Interactions In Vitro
2	Virginia C	95	Kaila	Trawitzki	Meal Assistance Vibrational Device for Independent Eating in Cerebral Palsy Patients
2	Virginia C	96	Jessica	Trinh	Contractility Measurements in Cardiomyocytes of Danon Disease Patients
3	Virginia C	121	Idi	Tulloch	Electrospun Cactus based Nanofiber Membrane for Water Filtration
1	Park Tower 8228	74	Robert	Turner	Highly Ferroelectric PVDF Nanocomposites: Mechanochemical Synthesis and Characterization
4	Virginia A	49	Amari	Vaughn	Data Analysis and Activity Recognition with Smartphone Sensors
4	Delaware A	39	Zoe	Vaughn	The application of (2-Hydroxyethyl Methacrylate) HEMA hydrogel for wound healing.
2	Virginia C	103	Willis	Walter	Evaluating Usafiri Dar es Salaam Rapid Transit

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4	Delaware A	41	Kristiana	Watson	Adsorption Kinetics of 4-n-Nonylphenol on Hematite and Goethite
1	Virginia C	112	Mercedes	Winfrey	A Study of Hybrid Electric Propulsion Solutions for Short Range Commuter Operations
3	Virginia C	116	Christopher	Word	LCA and UMP for Manufacturing Processes
1	Park Tower 8228	71	Ahmed	Yunus Ibrahim	Facile Fabrication of Magnetite (Fe ₃ O ₄) Nanoparticles by Hydrothermal Carbonization of Waste Iron Supplements
1	Virginia C	113	Vivian	Zhou	Probing Raman Signatures of 3C-SiC Thin Epilayers

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