



LaSPACE Fall 2025 Council Meeting Student Poster Titles

“Achieving direct bandgap and optoelectronic enhancement in scalable stacked MoS₂ monolayers”

Muhammad Aamir Abbas | Tulane University (Tulane) | REA | Poster # 44

“Exploring Mechanical Properties of 3D Printed Resin for Aerospace Applications”

Nour Abdelmageed | Southeastern Louisiana University (SELU) | LURA | Poster # 21

“Robotic additive manufacturing of support-free parts using non-planar slicing algorithm and five-axis print Path”

Abdalla Abdou | Southeastern Louisiana University (SELU) | REA | Poster # 45

“Real Time Autonomous Defensive Interception of Unwanted UAVs”

Yousuf Atteia | Louisiana State University and A&M College (LSU) | LURA | Poster # 22

“Advanced Bayesian Estimation and Global Sensitivity Optimization for Unmanned Aerial Systems”

Karan Baker | Louisiana State University and A&M College (LSU) | GSRA | Poster # 3

“Fabrication of high-sensitivity nanofiber-based glucose sensor for non-invasive Health monitoring in Space Tourisms”

Abdullah bin Bashir | University of Louisiana at Lafayette (ULL) | REA | Poster # 46

“The Impacts of Continuous, Low-Dose-Rate Neutron Radiation Exposure on Maternal and Fetal Skeletal Physiology”

Carlie Beard | Louisiana State University and A&M College (LSU) | Other | Poster # 41

“Graph-Theoretic Analysis of Student Interaction Networks for Enhancing Group Effectiveness”

Kayla Biggs | Louisiana Tech University (LaTech) | GSRA | Poster # 4

“Effects of Cadmium Toxicity from Wetland Pollutants on Brain Glutamate Levels in Mice”

Josephine Day | Louisiana Tech University (LaTech) | LASSO | Poster # 19



“Stak'em® - A Rocket Science Educational Kit for K-12 and Beyond”

Susannah Donoghue | University of Louisiana at Lafayette (ULL) | LURA | Poster # 23

“Composting Human Hair with Arboreal and Food Production Biomass Wastes for Plant Fertilizer”

Janae Dotson | Louisiana Tech University (LaTech) | LURA | Poster # 24

“Lanthanide β -Diketonate Complexes for Optical Environmental Sensing in Extreme Conditions”

Seth Doughty | Louisiana Tech University (LaTech) | GSRA | Poster # 5

“Real-World Implementation of Time-Delay Filters for Systems with Nonzero Initial Conditions: A Gantry Crane Case Study”

Dutch Dunphy | Louisiana State University and A&M College (LSU) | LURA | Poster # 25

“Multidimensional approach to Remote Species Classification and Vegetative Heath Monitoring to Inform Louisiana Forested Wetland Management”

Grant Erbelding | University of Louisiana at Monroe (ULM) | GIRAF | Poster # 1

“Printing and sintering of metal nanoparticles for fabrication of metal components and parts used in aerospace systems”

Samuel Goutierrez | University of Louisiana at Lafayette (ULL) | LURA | Poster # 26

*“Maximizing CO₂ Capture and Biomass Productivity of *Chlorella vulgaris* using Human-Derived Waste and Mars In situ Resources”*

Averie Guidry | University of Louisiana at Lafayette (ULL) | LURA | Poster # 27

“Fabrication Strategies for Conductive Hydrogel-Based Wearable Sensors”

Riley Guillory | University of Louisiana at Lafayette (ULL) | LURA | Poster # 28

“Reducing the risk of brain tumor development in astronauts post-spaceflight: a molecular approach using glioblastoma-derived extracellular vesicles”

Hope Hutson | Louisiana Tech University (LaTech) | GSRA | Poster # 6

“Detecting Charged Particle Interactions in High Altitude to Investigate the Pfozter Maximum”

Abigail Jesmer | Louisiana State University and A&M College (LSU) | LaACES | Poster # 16



“Effects of Salinity on Germination of Spore-Forming Bacteria”

Henry Johnson II | Louisiana Tech University (LaTech) | GSRA | Poster # 7

“Natural Countermeasures for Astronaut Mitochondrial Health”

Corinne Lansing | Louisiana Tech University (LaTech) | LURA | Poster # 29

“Enhancing Lunar Power System Resilience through Electromagnetic Transient Modeling and Analysis”

Toby Latino | Louisiana Tech University (LaTech) | REA | Poster # 47

“An Automated Variability Monitor and Flare Advocate System for the Future NASA Mission COSI”

Garrett Latiolais | Louisiana State University and A&M College (LSU) | LURA | Poster # 30

“X-59 Ground Operations Intern at Armstrong Flight Research Center”

Vinh Le | Louisiana State University and A&M College (LSU) | Internship | Poster # 15

“Design and Fabrication of Memristor Array for Space Application”

Hojun Lee | Louisiana Tech University (LaTech) | Senior Design | Poster # 52

“Spaceflight-related stressors converge to cause “space fog” symptoms and cognitive deficits; insights into potential therapeutic interventions”

Katelyn Lofton | Louisiana State University Health Sciences (LSUHSC) | GSRA | Poster # 8

“Assessing Impacts of Droughts and Storm Events on Wetland Vegetation”

Nicholas Lonergan | Louisiana State University and A&M College (LSU) | GIRAF | Poster # 2

“Object Identification Under Known Dynamics: A PIRNN Approach for UAV Classification”

Sean Maki | Louisiana State University and A&M College (LSU) | GSRA | Poster # 9

“Dose Characterization of Galactic Cosmic Rays In The Human Brain: A PHITS-Based Study With a Segmented Anatomical Phantom”

Shanice Manning | Louisiana State University and A&M College (LSU) | GSRA | Poster # 10

“Exploration of Regolith-based Nanothermite for Lunar Infrastructure through Grain Boundary Engineering”

Emma McCarthy | Louisiana State University and A&M College (LSU) | GSRA | Poster # 11



“Enhancing Drone Detection with Adaptive Wiener Filtering in Noisy and Dynamic Environments”

Neil Muralles | Louisiana State University and A&M College (LSU) | LURA | Poster # 31

“Multifunctional, liquid metal embedded soft materials towards seals with embedded electronics for space applications”

Olutofunmi Olaoye | Louisiana State University and A&M College (LSU) | REA | Poster # 48

“Isolation and Characterization of Soil-Derived Bacteriophages for Sustainable Seafood Safety Applications”

Alexis Ortega | Northwestern State University of Louisiana (NSULA) | LASSO | Poster # 20

“Demonstration of Lightweight Thermal Regulation for High-Altitude Balloon Payloads”

Alex Price | Louisiana State University and A&M College (LSU) | LaACES | Poster # 17

“The Potential of Multispectral and Hyperspectral Data to Estimate Photosynthetic Capacity Parameters”

Chi Qiu | Louisiana State University Agricultural Center (LSU-Ag) | Other | Poster # 42

“Validating the New Wayfinder System of the InterPlanetary Network”

Emily Reily | Louisiana State University and A&M College (LSU) | LURA | Poster # 32

“Jupyter Notebook Thermal Model for High Altitudes”

Kelsey Reitmeyer | Delgado Community College (DCC) | LaACES | Poster # 18

“The Effects of Microgravity on Serotonin and Dopamine in the Brain”

Carl Robbins | Louisiana Tech University (LaTech) | LURA | Poster # 33

“Dimensional accuracy of additively manufactured parts”

Joseph Robinson | Southeastern Louisiana University (SELU) | Senior Design | Poster # 53

“LOUIS and CLARQ - Rover-Drone Coordination System for Enhanced Navigation”

Ben Sehring | Louisiana State University and A&M College (LSU) | Senior Design | Poster # 54

“Resilient Control for CubeSat's Power System Through Digital Twinning”

Savion Siner | University of Louisiana at Lafayette (ULL) | GSRA | Poster # 12



“Clean Hydrogen Fuel from Methane for Propulsion Engines”

Piper Smith | Louisiana Tech University (LaTech) | LURA | Poster # 34

“Impact of low dose rate neutron irradiation during gestation on fetal development”

Catherine Sorrels | Louisiana State University Health Sciences (LSUHSC) | LURA | Poster # 35

“Temperature-Dependent Behavior of Memory Resistors for Neuromorphic Computing Applications”

Erin Stallings | Louisiana Tech University (LaTech) | LURA | Poster # 36

“Investigating the Effects of SSRIs on Serotonin Regulation Under Microgravity Conditions”

Seth Standley | Louisiana Tech University (LaTech) | LURA | Poster # 37

“Explainability of Unsupervised Machine Learning Methods for High-Energy Astrophysics”

Skye Strain | Louisiana State University and A&M College (LSU) | LURA | Poster # 38

“Light Gradient Boosting Machine-based Modeling and Forecasting of Oyster Norovirus Outbreaks”

Naresh Suwal | Louisiana State University and A&M College (LSU) | Other | Poster # 43

“Valorization of agricultural residues to produce fuel and consumable water on space missions”

Zannatul Ferdous Tulona | Louisiana Tech University (LaTech) | REA | Poster # 49

“Investigating the Photophysical Properties of Cerium Complexes”

William Viator | Louisiana Tech University (LaTech) | Senior Design | Poster # 55

“Crystal and Electronic Structure of Ba₁₂Ga₁₅As₂₂”

Spencer Watts | Louisiana State University and A&M College (LSU) | GSRA | Poster # 13

“Design and Development of a Small-Scale Centrifuge for Simulating Hypergravity Conditions”

Bryleigh Wickham | Louisiana Tech University (LaTech) | LURA | Poster # 39

“Intelligent PID Control Augmented with Input Shaping for Precision Motion Control in Dynamic Systems”

Bradley Wight | Louisiana State University and A&M College (LSU) | LURA | Poster # 40



“Bio-Inspired Lignin-Based Superhydrophobic Films for Sustainable Space Infrastructure”

Jermya Wilson | Louisiana Tech University (LaTech) | GSRA | Poster # 14

“Entropy-Based Feature Enhancement for Autonomous Fault Recognition in Space-Based Power Systems”

Mikaela Woodard | University of Louisiana at Lafayette (ULL) | Senior Design | Poster # 56

“Measuring Artificial Gravity During Suborbital Rocket Flight”

Nathaniel Wrobel | Louisiana State University and A&M College (LSU) | SAFOS | Poster # 51

“Formation Control of Multi-Agent Systems Based on Pure Vision”

Pengzhao Wu | Louisiana State University and A&M College (LSU) | REA | Poster # 50