



LaSPACE Fall 2024 Council Meeting Student Poster Titles

“Al6061/Al7075 Dissimilar Metal Joint Made with Additive Friction Stir Deposition”

Kekeli Agbewornu | Southern University and A & M College (SUBR) | REA | Poster # 36

“Fabrication of High-Sensitivity Nanofiber-Based Glucose Sensor for Non-Invasive Health Monitoring in Space Tourism”

Abdullah Ahmed | University of Louisiana at Lafayette (ULL) | REA | Poster # 31

“Solar-Aided UAV for Enhanced Flight Duration and Experimental Learning”

Houston Akridge | University of Louisiana at Lafayette (ULL) | Senior Design | Poster # 3

“Investigation of mechanical properties of 3D printed materials under dynamic loads”

Daniel Ayala | Southeastern Louisiana University (SELU) | LURA | Poster # 23

“The 2024 Solar Eclipse Ballooning Project: 60 launches in 30hrs”

Dre'Shawna Bradley | Delgado Community College (DCC) | LaACES | Poster # 13

“TinyML4WaterQ: Enabling Mobile Spectrophotometric-based Characterization of Water Quality Using Machine Learning Models Embedded in Light-weight Edge-computing Device”

Carly Broussard | University of Louisiana at Lafayette (ULL) | LaSSO | Poster # 12

“Developing a Hot Extrusion Rig for Metallic Materials”

Brenden Cormier | Southern University and A & M College (SUBR) | FFP+SURF 2024 | Poster # 29

“A Mechanistic Investigation of Catalyst Stability for Producing Liquid Rocket Propellant Fuels”

Caroline Cresap | Louisiana Tech University (LaTech) | REA | Poster # 32

“UV Spectrum of the Corona vs. Photosphere”

Caroline Davis | Louisiana State University and A&M College (LSU) | LaACES | Poster # 10

“Assessment of Lake Salvador Shoreline Dynamics to Support Restoration of Submerged Aquatic Vegetation in Jean Lafitte National Historical Park and Preserve, Louisiana”

Lydia DiPaola | University of New Orleans (UNO) | GIRAF | Poster # 2

“Autonomous Health Management System for Space Power DC Nanogrids”

Shayan Ebrahimi | University of Louisiana at Lafayette (ULL) | REA | Poster # 33

“Measuring Acceleration and Gyroscopic Precession During Sounding Rocket Flight”

James Garcia | Southeastern Louisiana University (SELU) | SAFOS | Poster # 1



“Investigation of the Degradation of Mechanical Properties of 3D Printed Materials Under Thermal Loads”

Abigail Gillis | Southeastern Louisiana University (SELU) | LURA | Poster # 24

“Ultralight Solar Cells for Space-Based Power”

Owen Harris | Tulane University (Tulane) | LURA | Poster # 20

“Apples to Apples: A SkeeterSat Calibration Comparison Between Delgado Team Members”

Josef Hightower-Hinnawi | Delgado Community College (DCC) | LaACES | Poster # 11

“Spark Plasma Heat Treatment of Metallic Parts Made by Laser Powder Bed Fusion Additive Manufacturing”

Edem Honu | Southern University and A & M College (SUBR) | REA | Poster # 34

“Reducing the risk of brain tumor development in astronauts post-spaceflight: mass spectrometry-based proteomic analysis of glioblastoma-derived extracellular vesicles”

K. Hope Hutson | Louisiana Tech University (LaTech) | REA | Poster # 30

“Wavelength Conversion Materials for Solar Cell Efficiency”

Eniola Irinoye | Grambling State University (GSU) | Senior Design | Poster # 6

“Gene Sampling Technology for Rapid Microbial Lysis and Genotyping in Microfluidic Device”

Md Aminul Islam | Louisiana Tech University (LaTech) | NASA EPSCoR R3 | Poster # 16

“Deciphering Gamma-ray Blazars Duty Cycle to Inform Polarization Studies with the Future NASA Mission COSI”

Garrett Latiolais | Louisiana State University and A&M College (LSU) | LURA | Poster # 21

“Asymmetric Tunneling of BEC”

Dusty Lindberg | Tulane University (Tulane) | NASA EPSCoR | Poster # 15

“Simulation of space radiation-induced double-strand breaks with CRISPR/Cas genome editing in the brain to evaluate the risk of cognitive decline and neurodegeneration during human spaceflight missions to Mars”

Katelyn Lofton | Louisiana State University Health Sciences (LSUHSC) | GSRA | Poster # 7

“In Silico Design and Synthesis of Anti-Inflammatory Peptides to Mitigate Oxidative Stress-Induced Neuroinflammation”

Dale Major | Louisiana Tech University (LaTech) | GSRA | Poster # 8



“Capturing Supernovae Neutrinos”

Justin Mitchell | Southern University A&M College | HIS / Timbuktu Academy | Poster # 18

“Multifunctional Soft Materials towards Seals with Embedded Electronics for Space Applications”

Olutofunmi Olaoye | Louisiana State University and A&M College (LSU) | REA, LURA, RAP | Poster # 39

“Development of an Acoustic Levitator”

Isaiah Parfait | University of Louisiana at Lafayette (ULL) | NASA Summer Intern | Poster # 17

“A self-charging piezoelectric zinc-ion battery for self-power capability in space”

Abhishek Paudel | Louisiana State University and A&M College (LSU) | REA | Poster # 35

“LOUIS: Autonomous Planetary Rover Optimized for Rough Terrain Exploration”

Pranav Pothapragada | Louisiana State University and A&M College (LSU) | REA, Senior Design | Poster # 41

“Investigating the Synthesis of Copper Sulfate By Electrolysis: A Machine Learning Guided Approach”

Elijah Preciely | Southern University and A & M College (SUBR) | HIS / Timbuktu Academy | Poster # 14

“Integrating the BeppoSAX Mission Into The InterPlanetary Network Gamma-Ray Burst Catalog”

Emily Reily | Louisiana State University and A&M College (LSU) | LURA | Poster # 19

“The Effects of Microgravity on Serotonin in the Brain”

Carl Robbins | Louisiana Tech University (LaTech) | LURA | Poster # 22

“Machine Learning and Its Applications In Image Processing”

Knykolas Ross | Southern University and A & M College (SUBR) | HIS / Timbuktu Academy | Poster # 38

“High Quality Transfer of Monolayer MoS₂ for High-performance Optoelectronic Devices”

Joshua Sasson | Tulane University (Tulane) | LURA | Poster # 28

“Design and construction of an LED circuit for optimizing emission from luminescent materials”

Gavin Soniat | Louisiana Tech University (LaTech) | Senior Design | Poster # 4

“Insights into the impacts of continuous, low dose-rate neutron radiation exposure on fetal skeletal development”

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

“Improvement of 3D printing setup for freeform fiber-reinforced photopolymer structures”

Mizuki Teruyama | Louisiana State University and A&M College (LSU) | REA, LURA | Poster # 37



“Forbidden Decays”

Karriem Upshaw | Southern University and A & M College (SUBR) | HIS / Timbuktu, LSLamp | Poster # 40

“Robotic additive manufacturing system”

Emily Walls | Southeastern Louisiana University (SELU) | Senior Design | Poster # 5

“TinyML4Heart: Realtime Early-Detection of Cardiac Arrest Risk Using Machine Learning in Embedded Edge-Computing Device”

Renee Ward | University of Louisiana at Lafayette (ULL) | LURA | Poster # 26

“Measuring Ozone as a Function of Ultraviolet Light”

Nathaniel Wrobel | Louisiana State University and A&M College (LSU) | HASP, GPS | Poster # 9

“Advancement of Thermoelectric Technology by Synthesis of Suitable Materials.”

Jacko Xiao | Louisiana State University and A&M College (LSU) | LURA | Poster # 27