

Brian Sweeney

Graduate Research Assistant

Department of Mechanical and Aerospace Engineering



BIO:

Mr. Brian Sweeney is currently a graduate student at the University of Alabama in Huntsville pursuing a Ph.D. in Mechanical Engineering. His current research involves the experimental study of liquid rocket engine injector spray characteristics and combustion instability. He has spent the past two summers at Kirtland AFB as an AFRL Space Scholar. At this position, he has worked on the development of a model to characterize the performance of monopropellant hydrazine thrusters. Other research projects have included low-pressure combustion instability experiments, design and scaling of injectors and combustion chambers as well as fatigue and burst experiments of propellant tanks. In addition, for the past three years he has been sponsored by the Alabama Space Grant Consortium Graduate Fellowship.

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RELEVANT PUBLICATIONS:

- 1. Sweeney, B., Lineberry, D., and Frederick, R., Jr., "Scaling a Single Element Atmospheric Combustor," 46th AIAA Joint Propulsion Conference, Nashville, TN, AIAA Paper 2010-6893, 2010.
- 2. Huynh, H., Sweeney, B., and Frederick, R., Jr., "Mode Assessment of a Single Element Shear-Coaxial Injector," 45th AIAA Joint Propulsion Conference, Denver, CO, AIAA Paper 2009-5493, 2009.