



JOHNS HOPKINS  
Center for Environmental  
& Applied Fluid Mechanics

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**Friday, August 30 2019  
3:00 PM, 132 Gilman Hall**

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***"Fluid Dynamics at Work at NASA MSFC –  
Applications to Space Exploration"***

**Presented by Ms. Lisa Griffin  
NASA Marshall Space Flight Center**

The seminar will start with an overview of the scope of the Fluid Dynamics Branch, ER42, activities at MSFC. The Branch is responsible for all aspects of the discipline of fluid dynamics applied to propulsion or propulsion-induced loads and environments. This work begins with design trades and parametric studies, and continues through development, risk assessment, anomaly investigation and resolution, and failure investigations. Because of the skills in the branch, ER42 also works non-propulsion items such as for telescopes and payload racks on an as needed basis.

Following the overview, the talk will delve a little deeper into 3-4 specific technical areas that the Branch is currently working on or has recently completed. This should provide a flavor of the kind of support the Branch provides to the Projects office in terms of environment definition, solutions to perceived applications, and risk reduction recommendations. These examples will illustrate the technical rigor and review that goes into the analysis and test activities and also highlight the often inter-disciplinary nature of the technical problems that need solution for space missions.