

# Space Physics Seminar

## Thursday, March 24, 2016

### Why do we shoot rockets at the aurora?

#### Marilia Samara

*National Aeronautics and Space Administration  
Goddard Space Flight Center*

#### Abstract:

The aurora is a visually captivating manifestation of energy and momentum transfer within the near-Earth space environment. The structures and temporal changes that we observe in the aurora can be used to gain information about what happened to the plasma on its way into Earth's atmosphere. Sounding rockets are an excellent vehicle for studying the aurora because they can get instruments above it to measure the electrons and electric fields that are responsible for driving it. In addition, it is also possible to launch a rocket when and where you want, such that one can observe the aurora from underneath and launch into a specific auroral display. The GREECE sounding rocket mission did just that, and preliminary results from that mission will be presented in this context. This type of experiment presents certain challenges and some of the particulars of what launching such rockets involves will also be discussed.

**3:15 pm**

Refreshments  
CAS Room 500

**3:45 pm**

Seminar  
CAS Room 502

#### Next Week

- Amir Caspi  
SwRI/Boulder
- TBD



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725 Commonwealth Avenue  
Boston, MA 02215