

**Space Science Seminar
Tuesday, 2016 August 16
10:30 a.m.
NSSTC/2096**

**The Development of a Gamma-Ray Burst
Polarimeter: From GAP to LEAP**

Dr. Shuichi Gunji / Yamagata University
Host: Dr. Stephen Daigle

Gamma-ray bursts (GRBs) are the most energetic phenomena in the universe. If we can use GRBs as standard candles instead of Type-Ia supernovae, we will be able to probe the conditions of the early universe at much larger distances. This can be realized through investigating the GRB-radiation mechanism and the opening angle of the jet. The spectral parameters of GRBs are related to the polarization of the emitted gamma rays, therefore the observation of the polarization is important. We have developed a polarimeter to measure polarization from GRBs. In this seminar, I will present a short summary of the Gamma-Ray Burst Polarimeter (GAP) project. I will also introduce some important issues to consider for the next generation projects such as the Large Area Burst Polarimeter (LEAP) and GAP2.

<http://solarscience.msfc.nasa.gov/colloquia/>