

**A Magneto-Inductive Magnetometer System for Boom-less Satellites  
and Backyard Citizen-Science Space Weather Monitors**

We are developing and testing a COTS magneto-inductive magnetometer and noise cancellation algorithms for boom-less satellites as well as for backyard space weather citizen-science sensor suites. Our effort is focused on developing and testing a firmware modified PNI RM3100 magnetometer for space environment conditions for radiation and thermal environments from LEO to the surface of Europa. We are also combining the magnetometer with a COTS dual-frequency GPS receiver for research and citizen science space weather observations. Our goal is to have magnetometers everywhere to make high-quality geomagnetic and space weather measurements. This seminar describes the new technology and highlights the innovative hardware and software solution that enables global sensor nets and constellation missions.

**Friday, October 22nd**

11:00 a.m.

110 Cummington Mall| Room 245

**Mark Moldwin**

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