

# Space Physics Seminar

## Thursday, October 16, 2014

### Electromagnetic Ion Cyclotron waves: their propagation in the magnetosphere and ionosphere and their role in Earth's radiation belt dynamics

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### Abstract:

Electromagnetic Ion Cyclotron (EMIC) waves are plasma waves driven by ion dynamics in Earth's magnetosphere. These waves have been studied for decades (both from the ground and in space) primarily because of their important role in coupling energy from the solar wind to the ionosphere. This energy transfer takes place not only through the generation and propagation of the waves themselves, but also via the scattering of energetic electrons and ions from the radiation belts by these waves. In this presentation, a review of EMIC waves studies will be presented, followed by some of the much more recent results obtained with various spacecraft and ground-based observations.

**3:00 pm**

Refreshments  
CAS Room 500

**3:30 pm**

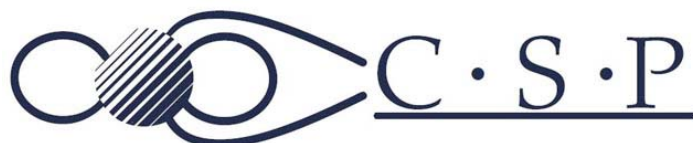
Seminar  
CAS Room 502

### Next Week

- Brian Anderson  
*Johns Hopkins University  
Applied Physics Laboratory*
- Operation and scientific results from the AMPERE project



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