

Physics Department Colloquium

Dr. Craig Kletzing, University of Iowa

Stormy (Space) Weather:

An “Emfisis” on the Radiation Belt Storm Probes

The Van Allen Probes mission was launched in August of 2012 to investigate the dynamic environment of the Earth's radiation belts. The NASA twin satellite mission is flying through the Van Allen belts more than 50 years after their discovery with the most comprehensive set of instruments ever deployed in this region of space. Thought for many years to be an essentially solved problem in space plasma physics, the new measurements show that quite to the contrary, the radiation belts are a highly variable part of space that still holds many questions for active research. This talk will present the story of the evolution from mundane to hot research topic, some basics of radiation belt plasma physics, the cast of characters from killer electrons to whistler waves, and an overview of some of the most exciting results from the Van Allen Probes mission and, in particular, plasma wave results from the Electric and Magnetic Field Instrument Suite and Integrated Science (EMFISIS).

Date: Tuesday, November 1, 2016

Time: 12:30 PM

Where: Science Complex, P-317

