MONTANA STATE UNIVERSITY | College of LETTERS & SCIENCE

Physics Colloquium

Friday, January 22, 2016
4:10 – 5:00 PM
EPS103

An X-Ray View of Solar Flares

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Abstract:

Solar flares are the most energetic phenomena in our solar system. In seconds to minutes they effectively release magnetic energy, heat plasma, and accelerate particles to relativistic speeds. Yet many aspects of where and how energy is released, how particles are accelerated and how they are transported, both close to the Sun and into interplanetary space, are still not understood. Signatures of accelerated electrons and hot plasma are readily observed in X-rays. In the past decade we have seen a lot of progress being made with X-ray data from the RHESSI satellite. I will describe how RHESSI observes solar flares and give examples of what we have learned about plasma heating, electron acceleration, and electron transport during flares. I will also provide an outlook to future observations of solar activity with ESA's Solar Orbiter which will be launched in 2018.

Hosts: Dana Longcope and David McKenzie

****** Refreshments served in the EPS second floor atrium at 3:45 ******