

# Coherent Inverse Primakoff-Bragg Conversion of Solar Axions in Single Crystal Bolometers

*Wednesday, 11 September 2013 15:00 (20 minutes)*

The energy spectrum of solar axions is peaked in the neighborhood of 3-4 keV, making coherent conversion to X-rays by the inverse Bragg condition possible. This in turn leads to a dramatic time-dependence of the event rate as the relative position of the Sun and a single crystal bolometer change with time. Two techniques for analyzing these time-dependent processes when the counting rate is low are presented.

**Primary author:** Prof. CRESWICK, Richard (University of South Carolina)

**Co-author:** Prof. AVIGNONE, Frank (University of South Carolina)

**Presenter:** Prof. CRESWICK, Richard (University of South Carolina)

**Session Classification:** Nuclear and Particle Astrophysics