MONTANA STATE UNIVERSITY | College of LETTERS & SCIENCE — Physics Colloquium

Friday, September 8, 2017
4:10 – 5:00 PM
Barnard Hall/EPS 108

High-Resolution Thermal Expansion of Single-Crystalline H_2O Ice

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http://www.physics.montana.edu/people/faculty/neumeier-john.html

Abstract:

The thermal expansion of H_2O Ice (the common form of ice, with the hexagonal Ih-phase) has never before been measured with the resolution that is possible today. We recently completed thermal expansion measurements (5 K < T < 270 K) of single-crystalline H_2O ice using a capacitance-based device. The relative resolution of the measurements is 1 part in 10^9, which is at least 1000 times higher than prior measurements. The methods and results of our experiments will be presented. The discussion will center on an interesting phase transition near 100 K and a minimum in the volume of ice near 60 K.

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Host: Rufus Cone

**** Refreshments served in the Barnard Hallway opposite Barnard 108 at 3:45 ****