MONTANA STATE UNIVERSITY

Physics Colloquium

Friday February 15th, 2013
4:10 – 5:00 pm, EPS108

"Palladius and Roman Sundials"
Subtitle: How 36 numbers help us understand the history of science and the ancient world

Ran Sivron, Associate Professor of Physics and Coordinator of the Pre-Engineering Program Math, Physics and Computer Science Department Baker University, Baldwin City KS

Abstract:
Small Liberal Arts college allow for cross-disciplinary research with professors from other disciplines and some talented undergraduates. I will describe at least one such experience: Professor John Richards, a history professor in my college, discovered a detailed table of 132 shadow lengths of vertical sundials in a book by Palladius (11 hours x 12 months). The book was the most widely used agricultural almanac from 400AD and all the way to the 17th century. My student and I employed spherical trigonometry and statistical methods used in modern astrophysics to determine where and how Palladius conducted his observations. In the process John, Mason and I discovered curious facts about how Romans measured time and built sundials. We may have even uncovered evidence for early use of spherical trigonometry, Ptolemi's model, or alternately a series of funny but unfortunate mistakes.

If time permits, I'll talk about other research projects with students from "The Summer Science Program" (www.ssp.org) that I directed between 2 004-2010.

Host:
Sachiko Tsuruta

Refreshments served in the EPS second floor lobby at 3:45, prior to the talk.