



NEBRASKA CENTER FOR MATERIALS AND NANOSCIENCE
2013 SEMINAR SERIES PRESENTS



Prof. James F. Scott

**Prof. James F. Scott
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The Renaissance of Ferroelectric Memories

Electrical switching in ferroelectrics was discovered in 1920, but oddly enough, no commercial switching devices were made from them until 1984. Some modest industry use was achieved by 1994, culminating in application in the SONY Playstation 2. But this did not continue, and the Playstation 3 did not use ferroelectrics. In this talk I will explain why, describing both the basic physics (some of which goes back to Ku and Ullman in Lincoln) and technology transfer, with an up-date to include recent work on three-dimensional devices, resistive random access memories (RRAMs), and magnetoelectric switching (switching electrical polarization P not with an electric field E but with a small magnetic field H) at room temperature in a single-phase multiferroic crystal.

**Friday, January 25, 3:30 pm
Room 136 Jorgensen Hall**

Refreshments served in Jorgensen Atrium area

**Host:
Prof. Alexei
Gruverman
Department of
Physics & Astronomy**

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