

## MM 27: HV Viehland

Time: Wednesday 9:30–10:00

Location: H16

**Invited Talk**

MM 27.1 Wed 9:30 H16

**Multiferroic Composites** — •DWIGHT VIEHLAND — Virginia Tech, Blacksburg VA USA

Multi-functional materials can respond to more than one external stimulus. One important family of such materials would be those with magnetization-polarization interactions: however, prior searches for

such systems with strong exchange have proven elusive. In this talk, we will discuss advances in magnetoelectric materials. Investigations of multi-ferroic behavior will be presented for magnetoelectric (i) laminate composites of piezoelectric and magnetostrictive layers; (ii) self-assembled two phase nanocomposite layers; and (iii) self assembled two phase single grain particles. We will demonstrate that strong interaction can be achieved between the spin and polarization subsystems.