



Seminarankündigung

**Freitag, 17. Mai 2019
10:30 Uhr**

WSI, Seminarraum S 101

“Transition metal oxides and resistive RAM memory”

Abstract: In the search for the ideal computer memory, transition metal oxides have emerged as one of several leading candidates for Resistive RAM memory. The memory works using applied fields to move and create oxygen vacancies which store the information. Data on the DC, temporal switching, switching statistics and noise for TaO₂ and TiO₂ memory devices are presented and analyzed in terms of quantum conductive filaments formed/destroyed by oxygen vacancy dynamics. The expected switching statistics, electrical properties and bit error rates can be modeled by fraction order diffusion and stable distributions relating to the dispersive transport of vacancies.

**Prof. Warren Jackson
Palo Alto Research Center, PARC
Electronic Materials Development Lab
Palo Alto, USA**