

**TRENT UNIVERSITY  
PHYSICS & CHEMISTRY SEMINAR PROGRAM**

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**WEDNESDAY, NOVEMBER 12, 2014**

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**We know non-interacting particles can be localized by  
disorder. What about interacting particles?**

**ABSTRACT**

In 1958, Phil Anderson showed that the wave functions of non-interacting particles moving in a random potential can become localized in space. Anderson localization has since been observed in a wide variety of systems. However, interactions between particles aren't always negligible. In fact it is precisely the materials in which electron-electron interactions are most significant that are of the greatest current interest. Moreover, the properties of these materials are usually tuned by doping, which introduces disorder. So how do interactions effect localization? This talk will provide an overview of very recent efforts to determine what localization means in interacting systems.

**SCIENCE COMPLEX ROOM 115**

**11:00 AM**

**All Welcome!**

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