

CEA - Saclay 91191 Gif-sur-yvette Cedex
Service de Physique de l'Etat Condensé
SÉMINAIRE

Mercredi 8 février 11h15

Orme des Merisiers SPEC Salle Itzykson, Bât.774

Quantum Matter "On-a-chip"

Guillaume Gervais

Department of Physics,

McGill University (Canada)

I will describe my quantum (hopefully not random) walk in the area of low temperature nanoscience, with the hope to elucidate "bizarre" quantum phenomena. I will discuss several experiments that are underway in my laboratory: these include

- our effort to detect bizarre particles that are neither boson or fermion,
- the Coulomb drag of electrons in two closed-pack quantum wires, separated by only ~15 nm,
- a nano-engineered quantum faucet (for real fluids!) and
- an extreme camera that can take pretty pictures in 16 tesla and at a temperature of 100 mK.

It's a lot of (quantum) fun!

A coffee break will be served at 11h00. The seminar will be given in English.

Contact : patrice.bertet@cea.fr/sebastien.aumaitre@cea.fr - Tel : +33 1 69 08 55 29 / 74 37
<http://iramis.cea.fr/spec/>