



Unité Mixte de Physique CNRS/Thales

Séminaire le lundi 06/06/2015 à **11h00**, salle 1B2-106

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Spin angular momentum transport in metals and magnetic insulators

I will present a spin transport theory involving conversion among conduction electron spins, ferromagnetic magnons, and antiferromagnetic magnons. Electron spins and magnons are quasi-particles with an intrinsic angular momentum, and thus they are equally capable of delivering angular momentum throughout multilayers. A very interesting case is the antiferromagnetic insulator where two branches of magnons behave like spin-up and down electron spins of non-magnetic metal as far as the angular momentum transport is concerned. We predict a few experimental consequences for the antiferromagnetic magnon transport.