



Mercredi 15 octobre 2014 à 11h15

Orme des Merisiers SPEC, Salle Itzykson, Bât.774

Probing the Influence of Interfaces in Spin Pumping

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This talk will explore spin transport between spatially separated volumes, a scientifically intriguing topic with the potential to enable new approaches to information storage and processing, in a variety of settings. Such transport due to spin pumping, the transfer of spin angular momentum from a ferromagnet into an adjacent material as a consequence of the excitation of the magnetization of the ferromagnet, is highly sensitive to the interface. It is exponentially suppressed by the insertion of thin insulating barriers whereas the insertion of the Cu layer in $Y_3Fe_5O_{12}/Cu/W$ trilayers *enhances* the spin current. Scanned probe magnetic resonance microscopy is a powerful tool in this context offering high resolution magnetic resonance imaging, localized spin excitation and measurement of spin relaxation and damping on the nanoscale. Using microscopic scanned probe magnetic resonance we explore the relationships between spin lifetime and transport in systems where material interfaces can be eliminated.

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