

ESM Cargese - 10-20th October 2017
Transport - Laurent Ranno

One of the interesting subject which appears when you mix magnetic materials and electric transport is the field of spin electronics. It runs from the fundamental transport properties of the materials to a large range of phenomena which are evidenced and enhanced when more elaborate structures are fabricated. When dealing with structures at the right transport scale (i.e. mean free path or decaying length for example) magnetoresistive effects (giant magnetoresistance, tunnel magnetoresistance) or more general current-magnetisation interactions emerge (spin transfer torque for example). Time permitting, a few examples of the impact of spintronics into the recording world will be discussed (HDD and magnetic memories for example).