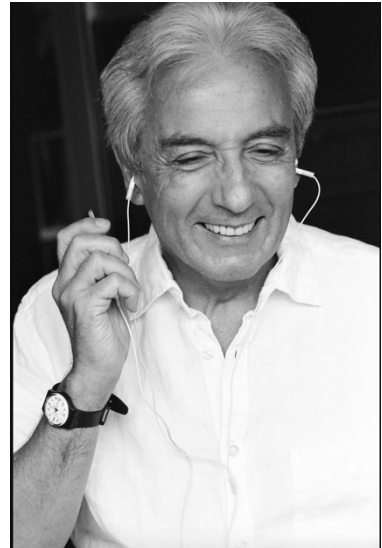


Albert Fert



Presentation title

Topology and Spin-Orbit Coupling in Low Dimensions Lead to Novel Directions in Spintronics

Albert Fert is Professor at Université Paris-Saclay and Scientific Director at UMR CNRS/Thales laboratory he co-founded in 1995. In 2007, Albert Fert and Peter Gruenberg received the Nobel Prize in Physics for their discovery of the Giant Magnetoresistance (GMR) in 1988.

The GMR has led to important applications and, for example, has increased the capacity of the magnetic hard disks by a factor of about thousand. Its discovery has also led to the development of a new type of electronics exploiting the spin of the electrons and called spintronics.

Albert Fert has contributed to this development. Today, his research is mainly on spintronic phenomena exploiting topology and spin-orbit interactions in low dimension systems (from magnetic skyrmions to topological insulators and Rashba 2DEGs).