The CNR Institute SPIN (an evocative name and acronym for “SuPerconductors, oxides and other INnovative materials and devices”) was established on February 1st, 2010 and Ruggero Vaglio was named as its first Director.

**Mission:** innovative materials and their application in the fields of electronics and energy.

**Director:** Carlo Ferdeghini

**Research Topics:** oxides, organic, hybrid and other complex materials exhibiting superconducting, magnetic and other properties for the development of novel nano- and micro-device concepts and prototypes.

A relevant characteristic of the Institute is the extensive use of linear, nonlinear and ultrafast laser techniques for materials synthesis and characterization as well as synchrotron radiation techniques.

**Locations:** SPIN includes four previous CNR-INFM structures: **Coherentia** (Naples), **LAMIA** (Genova), **SUPERMAT** (Salerno) and **CASTI** (l’Aquila). Accordingly, SPIN has now four “Operative Units” (UO), one in each of these cities (Naples, Genova).
The Institute headquarters are in Genova, in the main building where INFM and LAMIA were previously located. The other UO are hosted inside University locations.

**Personnel:** the Institute assembles a team of 60 CNR staff researchers, 80 associated university professors, 16 employees in administration and general services, and a good number of post-docs and PhD students (about 40 at this stage).

**Education:** training and education at undergraduate and PhD level are carried out in close collaboration with the Universities hosting the local SPIN research Units.

**Industrial relations and technology transfer.** The spin-off company Columbus Superconductors S.p.A. is a successful example coming from the fruitful research collaboration of SPIN researchers with ASG Superconductors S.p.A. for the production and commercialization of innovative MgB2 superconducting wires.

One in the main technology transfer initiatives is participation to the Regional Competence Center in Campania “New Technologies for productive activities” (Naples and Salerno Units) that represents an important and effective connection with the local industrial tissue.

**Equipments:** SPIN is endowed with an impressive set of advanced scientific instruments, including nearly 20 thin film deposition systems, 3 clean rooms, 3 high-field and-low temperature STM systems, numerous laser sources emitting from IR to UV and ranging from CW mode to femtosecond pulses,

The scientific research is supported by well-equipped cryogenic services, electronic and mechanical workshops, library, www, e-mail, network-storage services and GRID computing.
Budget: the Institute overall institutional budget is on the order of 4 million € per year (including the employee payroll) and a further budget on the order of 2 million € per year is expected through participation in competitive research calls (projects funded at regional, national, European and international level).


**SPIN Flyer**