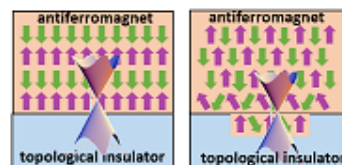


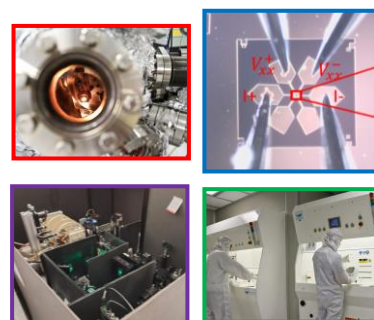
Berry phase Engineering with Antiferromagnets and Topological Insulators (BEAT – PRIN 2022)

Research title: Fabrication and characterization of composite topological/ferroic devices for field-free spintronics

The aim of the research activity is to control the electrical transport in **3D topological insulators** via new device concepts involving long-range magnetic order (especially **antiferromagnetism**), magneto-electricity and geometrical confinement, exploiting **Berry phase engineering** and **Hall effects**.



The candidate will be involved in fabrication and characterization of micrometric devices, realized by **thin films deposition** (MBE, PLD) techniques and **optical lithography tools**, and characterized by **magneto-transport** (Hall, spin-Hall) and **magneto-optical** (Kerr) techniques, all available at the PoliFab facility of PoliMI.



- *Duration:* 14 months full time
- *Workplace:* Dipartimento di Fisica & Polifab, Politecnico di Milano, via Giuseppe Colombo 81, 20133 Milano, Italy.
- *Salary:* 27 000 € (1708 € euro net salary)

To apply:

For more info: www.fisi.polimi.it/it/bandi

Deadline 8/1/2025

Contact: prof. **Matteo Cantoni** (matteo.cantoni@polimi.it)

