



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Quantum effects of nano-devices and applications for the next generation of Electronics and Thermoelectrics

2122-79R-M2

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#### Title

Quantum effects of nano-devices and applications for the next generation of electronics and thermoelectrics

#### Teacher(s)

Dr. Frederico Martins, Hitachi Cambridge Laboratory (GB)

#### Language

English

#### Short description

1. Electron Quantum transport and Materials: 0D, 1D and 2D systems.
2. Quantum effects: quantum points contact, quantum Hall effect, Coulomb blockade, superconductivity
3. Spin-based Quantum Computation

4. Nanostructured devices for thermoelectric applications

**CFU / Hours**

1 CFU, 8 hours

**Teaching period**

Spring 2022:

from April 4 to April 8 (14.30-16.30)

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