

**Staff:** 2900 researchers, professors, engineers and technicians;  
335 in Microtechnologies and sensors

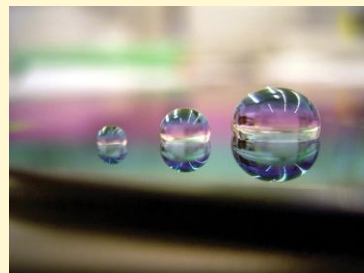
**Research fields:** Sensors and wireless devices, Microsystems and nanoelectronics,  
Printed functional solutions, Photonic devices and measurement solutions

### Research topics in Micro and NanoSystems

- SOI / surface MEMS
- Sensors, detectors, and actuators
- Integrated passive circuits
- Superconductive devices
- RF-MEMS, THz technology
- RFID, antennas, interface electronics
- 3D integration
- New materials and processes



*Embedded copper wiring in glass*



*Droplets on a hydrophobic surface*

### Technology

- 2600 m<sup>2</sup> clean rooms class 100 & 10
- Contact, stepper, NIL, e-beam lithography
- SOI and poly surface MEMS
- Amorphous metal surface MEMS
- Monolithical MEMS / IC integration
- Narrow-gap / HAR technologies
- HF vapor, ALD, CMP, grinding, bonding
- Polyimide, BCB, parylene

### Design, simulation & characterization tools

- ANSYS FEM, Multiphysics
- Microscopy, SEM, AFM, IR
- Reflectometry, ellipsometry
- Optical, stylus profilometry
- Mechanical characterization
- Electrical characterization
- Particle measurement
- Other on campus

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