

# Michele

## MARTEMUCCI



### Contact

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### Languages

English – C1

French – B2

Italian – Native tongue

### Technical skills

- Python
- Matlab
- Analog hardware design (Cadence Virtuoso, LT Spice)
- Digital hardware design (VHDL, ModelSim, Synopsys Design Compiler, Cadence Innovus)
- COMSOL Multiphysics
- Latex

### Soft skills

- Project management
- Time management
- Workplace communication
- Strategy and finance

### Summary

Second year PhD student in Electronics at the SPI Doctoral school, Université de Bordeaux. I received the M.S. degree in Nanotechnologies for ICTs in 2021, jointly from Politecnico di Torino, Grenoble INP – Phelma and EPFL. My work and research interests focus on designing intelligent memory-chip for low energy hardware data processing using bio-inspired concepts, such as artificial neural network.

### Experience

- **PhD at CEA LIST/LETI**  
(10/21 to present) - Exploring Learning Techniques for Edge AI Taking Advantage of Non-Volatile Memories.
- **Master Thesis Internship at IBM Research Europe - Zurich Research Lab (ZRL)**  
(08/20 – 01/21) - Accurate weight mapping in a multi-memristive synaptic unit for in-memory computing applications.
- **Internship Trainee at Holst Centre, HTC Eindhoven**  
(06/19 – 09/19) - Design and modelling of a stand-alone pressure sensor for printed electronics on stretchable substrates.

### Education

- **PhD – Electronics**  
(10/21 to present) - Ecole doctorale Sciences Physiques et de l'Ingénieur, Université de Bordeaux
- **Master's Degree in Nanotechnologies For Ict's**  
(09/18 – 04/21) - Politecnico di Torino/ Phelma-Minatec/ EPFL  
Final grade 110/110 cum laude
- **Bachelor's Degree in Physical Engineering**  
(08/15 – 09/18) - Politecnico di Torino  
Final grade 110/110 cum laude
- **Young Talents Program**  
(08/15 – 09/18) - Politecnico di Torino
- **International Experience - EU/Young Talents Program**  
(01/2018 – 06/2018) - Université Paris-Diderot

### Publications

- Michele Martemucci et al. "Accurate weight mapping in a multi-memristive synaptic unit", ISCAS 2021.
- Riduan Khaddam-Aljameh, Michele Martemucci et al. "A multi-memristive PCM unit cell design with diagonal word-lines for in-memory computing applications", IEEE Transactions on Circuits and Systems II: Express Briefs.
- Daniele Raiteri, Milan Saalmink, Marieke Burghoorn, Peter Zalar, Michele Martemucci et al., "Fully-printed stretchable pressure sensor arrays", 2019 IEEE SENSORS, Montreal, QC, Canada, 2019, pp. 1-4.

### Certifications

- IELTS Academic 7.0 - International English Language Testing System
- ECDL - European Computer Driving Licence