



DETAILS

W PitchD W

the PhD's pitch



DETAILS



Our PhD members explain to students, colleagues and professors...

Politecnico di Torino - Maxwell Room

19th February 2025 - 5.00 PM

Video-based, AI-powered systems for telemonitoring and telerehabilitation in Parkinson's disease



Mr. **Gianluca Amprimo**, PhD Candidate, DAUIN.

Deep learning enables remote monitoring of **Parkinson's disease** using human pose estimation from video, reducing clinical visits and tracking symptom progression. It also supports interactive rehabilitation through exergames. This talk explores its applications and future directions.

Investigating heterogeneity in neuronal excitability states through Patch-seq data

Mr. **Lorenzo Martini**, PhD Candidate, DAUIN.

We explore excitability diversity in inhibitory neurons through **Patch-seq**, combining electrophysiology, RNA sequencing, and morphology to identify correlations between molecular signatures and electrophysiological profiles, revealing pathways that influence **neural network function**.



Quantum-related approaches for solving optimization problems

Mrs. **Deborah Volpe**, PhD Candidate, DET.



Engineering **quantum computing** for optimization involves multiple degrees of freedom and abstraction levels. This research aims to enhance quantum-compliant optimization by improving existing solvers, developing quantum-inspired approaches, and formulating quantum solutions for **real-world optimization problems**.

JOIN OUR



COMMUNITY

sites.ieee.org/sb-polito

sb.polito@ieee.org

[IEEESBPoliTO](https://www.facebook.com/IEEESBPoliTO)

[ieeesbpolito](https://www.linkedin.com/company/ieeesbpolito)



Politecnico di Torino
IEEE Student Branch



Advancing Technology
for Humanity