



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

PHD IN TECHNOLOGIES FOR FUNDAMENTAL RESEARCH IN PHYSICS AND ASTROPHYSICS

Curriculum: COMPUTING

- Advanced scientific programming in Matlab
- Programmable System on Chip (SoC) for data acquisition and processing
- Adaptive Optics for Astronomy
- Fundamentals of system engineering and project management for large scientific projects
- Machine Learning for Physics
- Simulation of optical photon propagation for generic scintillator-based detectors
- Computing Methods for Experimental Physics and Data Analysis
- Neural Networks and Deep Learning
- Introduction to Neuromorphic Computing
- Cloud Computing & Big Data
- Cloud Computing & Big Data Lab
- Maximum-entropy methods for complex systems I
- Maximum-entropy methods for complex systems II
- Quantum Artificial Intelligence