

# Davide Melini's Curriculum Vitae

## Education background and work positions

- Born on 20th February 1990 in Genoa, Italy.
- High-school at Liceo Scientifico G. Marconi in Chiavari (Genoa), Italy. (2004-2009, mark 95/100).
- Master in Physics studies at Università di Genova, in Genoa, Italy, (2009 to 2014, mark 110/110).
- Master thesis at NIKHEF Theory group in Amsterdam, Netherlands, (2013-2014, thesis supervisors were prof. Eric Laenen (NIKHEF) and prof. Giovanni Ridolfi (Università di Genova)
- PhD studies at Universidad de Granada, in Granada, Spain (2014-2018, max mark cum laude).
  - Supervision of professors R. Pittau and J. Fuster.
  - Funded by the European Research Commission (HiggsTools network (higgs-tools.org , 2014-2017) and Consejo Superior de Investigaciones Cientificas (Severo Ochoa Excellence, 2017-2019)
  - Thesis on measurement of top-quark mass in  $t\bar{t} + 1$  jet topologies at 8 TeV with the ATLAS detector
- Post-doctoral researcher at Technion in Haifa, Israel (2019-2023)
  - Searches for new physics at low mass.
  - Machine-learning for jet-tagging.
  - largely based at CERN.
- Post-doctoral researcher at Instituto de Fisica Corpuscolar in Valencia, Spain (2023-now)

## Responsibilities

- Responsible for ATLAS Jet data calibration and uncertainties (2017-2020)
- Responsible for more than 5 ATLAS publications
- Contributed to more than 10 ATLAS publications
- Jet&MissingEnergy expert contact for the Exotics group (2021-now)
- Helped in supervision of 3 PhD students and 2 Master students.

## Selection of publications

A selection of articles to which I contributed.

Top-quark physics

- JHEP 11(2019)150
- JHEP 05 (2022) 146

Jets

- Eur.Phys.J.C 79(2019)135
- ATL-PHYS-PUB-2021-029
- ATLAS-CONF-2020-022
- arXiv:2308.00716

Searches for new physics

- Phys.Lett.B 795(2019)56
- Phys.Lett.B 788(2019)316
- Eur.Phys.J.C 82(2022)3,265

Miscellanea

- J.Phys.G 45(2018)065004
- PoS ICHEP2022 882