

ATLAS Trieste / Udine - PhD activities

List of proposed research topics:

- Top-quark production cross-section measurement with Run 3 LHC data at the ATLAS experiment
- Search for new heavy particles decaying to pairs of top quarks at the ATLAS experiment
- Precision measurement of the top quark mass at the ATLAS experiment
- Search for dark matter production in events with top quarks and missing energy at the ATLAS experiment
- Extraction of the b-quark forward-backward asymmetry at the Z-boson mass pole from LHC data with the ATLAS experiment
- Feasibility studies for searches and measurements at future high-energy colliders (including the b-quark forward-backward asymmetry at the Z-boson mass pole at the FCCee collider)
- Development of statistical tools based on the profile-likelihood formalism for data analysis in ATLAS
- Development of distributed computing tools on the LHC Grid for the ATLAS experiment
- Upgrade of the ATLAS Inner Detector: pixel Inner Tracker (ITk)

For more information:

- ATLAS Udine website: <http://atlasud.uniud.it/>
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