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Links:

<https://atlasud.uniud.it/>

<https://atlas.cern/>



IL GRUPPO MATERIALE D

Presentazione

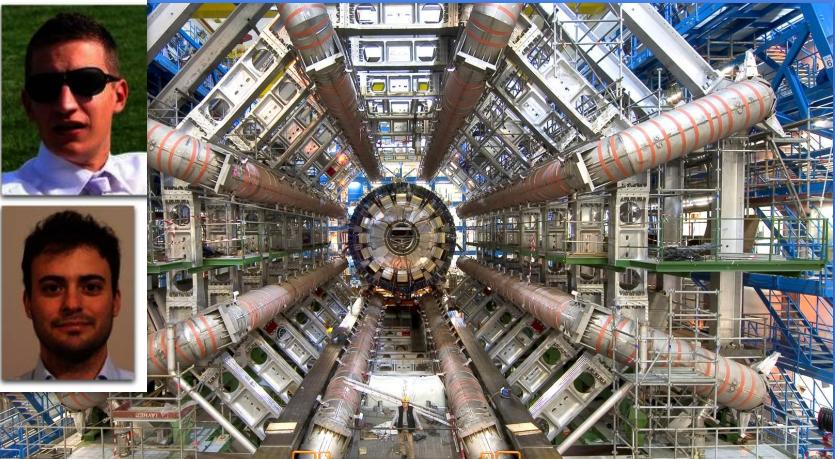


Organi sociali

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Disponibilità di tesi e tirocini triennali e magistrali

Alcuni argomenti di tesi proposti:

- **ATLAS data analysis:**
 - Top-quark mass measurement using new techniques
 - Search for new physics in final states with a pair of top quarks
 - Entanglement effects and Bell Inequalities in top-pair final states
- **Data analysis tools and techniques:**
 - Data-analysis & Computing: developing efficient HEP data analysis tools using RDataFrame
 - Data-analysis & Machine-learning: regression deep neural networks for heavy resonance identification
 - Data-analysis, Computing & Machine-learning: python-ROOT interfaces for machine-learning tools
 - Statistical Analysis: comparison of profile-likelihood and chi-square approaches for combination of measurements
 - Statistical Analysis: comparison of traditional unfolding techniques with new profile-likelihood unfolding methods
- **Studies for future colliders:**
 - Forward-backward asymmetry measurement of b-quarks from Z-boson decay at a future "TeraZ" e+e- collider
 - Triple and quartic gauge couplings at future colliders in final states with multiple electro-weak gauge bosons
 - Search for dark photon signatures at future high energy particle colliders

