

Top physics at the LHC and future colliders

Research Project / Research Group Description:

Our group has a strong focus on top quark physics. We have a solid background in highly boosted top quark pair production and the development of alternative methods for the measurement of the top quark mass. The group is deeply involved in future collider projects (in particular ILC/CLIC) and is actively exploring the potential of top physics at new machines. The implication of the group in detector R&D is centered on the development of novel pixel vertex detectors and the design of the forward tracker of a future linear collider experiment.

Job position description:

The student will participate in one of the following:

- The analysis of the data collected by the ATLAS experiment at the LHC, either in one of the existing measurements (top mass or boosted production) or initiating a new line of research.
- A contribution to the ongoing studies of the linear collider potential for top physics, studying a new, uncovered topic.
- The design of the ILC forward tracker and the development of ultra-transparent silicon detectors with integrated micro-channels.

GROUP LEADER: Juan Fuster Verdú

Juan.fuster@ific.uv.es

Research project/Research Group website

<http://webific.ific.uv.es/web/altasenergias>



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