

Searches for fourth generation quarks

It is still a mystery why the Standard Model as we know it has three families. At new high energy colliders it is worthwhile to search for a new additional family – which obviously would have a heavy neutrino to avoid the LEP bounds. This presentation discusses new studies made with the CMS detector for the search of new heavy b-like quarks in several different decay modes and for different possible mass regions. These studies are based on detailed detect or simulation, including all Standard Model backgrounds. Particular emphasis is given to possible early discoveries, ie with 100 pb⁻¹ or less. Projected 95% CL exclusion limits as function of luminosity are presented as well.

Primary author: CHAO, Yuan (National Taiwan University)

Presenter: CHAO, Yuan (National Taiwan University)

Track Classification: Poster session