

Introduction

The excited bottom quark (b^*) is produced by a gluon interact with a bottom quark, and decayed to tW signature. This b^* could be left-handed, right-handed or vector-like. The experimental search at ATLAS is published in Phys. Lett. B 721 (2013) 171-189 (<http://arxiv.org/abs/1301.1583>). This channel could be hunted in the dilepton channel, lepton + jets channel and multijet channel (in the last two case using substructure techniques). This analysis is belong to B2G resonance sub-group. The B2G ongoing analysis is at [here](#).

(wo) Man power

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PKU Beijing Group: Qiang Li, Mengmeng Wang (To be confirmed)

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VUB Group: Freya Blekman

Johns Hopkins University (US): Kevin Nash, Petar Maksimovic, Marc Osherson

Documentation and publication:

CMS: B2G-14-005 [↗](#)

Meetings and presentations

27 Sept. 2013 B2G resonance meeting: by Huaqiao [↗](#)

Signal Generation

The signal is modeled with MadGraph 5. An example generation is at [here](#) [↗](#). Official production is under-going (30, Aug 2013)

Data and MC samples (2012 full 8 TeV 19.8 fb⁻¹ data)

B2GTopLikeBSM3X

More details, please check related B2G twiki and B2G Resonance twiki.

Lepton + Jets channel

non boosted analysis

Lepton + boost top analysis


Lepton + boost W analysis

Di lepton channel

Full hadronic channel

Limit Setting

Tool kit of Theta:

<http://www-ekp.physik.uni-karlsruhe.de/~ott/theta/theta-auto/> 

This topic: Main > Bstar2tw

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