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Measurements of differential cross sections of top quark pair production as a function of kinematic event variables in proton-proton collisions at root s=13 TeV

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Abstract

Measurements of differential t (\bar{t}) over \bar{b} production cross sections are presented in the single-lepton decay channel, as a function of a number of kinematic event variables. The measurements are performed with proton-proton collision data at root $s = 13$ TeV, collected by the CMS experiment at the LHC during 2016, with an integrated luminosity of 35.9 fb⁻¹. The data are compared to a variety of state-of-the-art leading-order and next-to-leading order t (\bar{t}) over \bar{b} simulations.

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- GEANT4-a simulation toolkit** Times Cited: **10,211**

By: Agostinelli, S; Allison, J; Amako, K; et al.
 NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT Volume: 506 Issue: 3 Pages: 250-303 Published: JUL 1 2003
- HATHOR - HAdronic Top and Heavy quarks crOss section calculatoR** Times Cited: **322**

By: Aliev, M.; Lacker, H.; Langenfeld, U.; et al.
 COMPUTER PHYSICS COMMUNICATIONS Volume: 182 Issue: 4 Pages: 1034-1046 Published: APR 2011
- A general framework for implementing NLO calculations in shower Monte Carlo programs: the POWHEG BOX** Times Cited: **836**

By: Alioli, Simone; Nason, Paolo; Oleari, Carlo; et al.
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 6 Article Number: 043 Published: JUN 2010
- NLO single-top production matched with shower in POWHEG: s- and t-channel contributions** Times Cited: **214**

By: Alioli, Simone; Nason, Paolo; Oleari, Carlo; et al.
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 9 Article Number: 111 Published: SEP 2009
- Comparative study of various algorithms for the merging of parton showers and matrix elements in hadronic collisions** Times Cited: **431**

By: Alwall, J.; Hoche, S.; Krauss, F.; et al.
 EUROPEAN PHYSICAL JOURNAL C Volume: 53 Issue: 3 Pages: 473-500 Published: FEB 2008
- The automated computation of tree-level and next-to-leading order differential cross sections, and their matching to parton shower simulations** Times Cited: **1,798**

By: Alwall, J.; Frederix, R.; Frixione, S.; et al.
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 7 Article Number: 079 Published: JUL 17 2014
- Effects of color reconnection on t(t)over-bar final states at the LHC** Times Cited: **12**

By: Argyropoulos, Spyros; Sjostrand, Torbjorn
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 11 Article Number: 043 Published: NOV 10 2014

8. **Measurements of top- quark pair differential cross- sections in the eμ channel in pp collisions at v s = 13TeV using the ATLAS detector** Times Cited: 8
Group Author(s): ATLAS collaboration
Eur. Phys. J. Volume: C77 Pages: 292 Published: 2017
9. **Measurements of top-quark pair differential cross-sections in the lepton + jets channel in pp collisions at p s = 13 TeV using the ATLAS detector** Times Cited: 8
Group Author(s): ATLAS collaboration
JHEP Volume: 11 Pages: 191 Published: 2017
IN SPIRE
10. **Herwig plus plus physics and manual** Times Cited: 888
By: Baehr, Manuel; Gieseke, Stefan; Gigg, Martyn A.; et al.
EUROPEAN PHYSICAL JOURNAL C Volume: 58 Issue: 4 Pages: 639-707 Published: DEC 2008
11. **Percent-Level-Precision Physics at the Tevatron: Next-to-Next-to-Leading Order QCD Corrections to q(q)over-bar -> t(t)over-bar+X** Times Cited: 198
By: Baernreuther, Peter; Czakon, Michal; Mitov, Alexander
PHYSICAL REVIEW LETTERS Volume: 109 Issue: 13 Article Number: 132001 Published: SEP 25 2012
12. **Parton distributions for the LHC run II** Times Cited: 581
By: Ball, Richard D.; Bertone, Valerio; Carrazza, Stefano; et al.
Group Author(s): NNPDF Collaboration
JOURNAL OF HIGH ENERGY PHYSICS Issue: 4 Article Number: 040 Published: APR 8 2015
13. **Hadronic top-quark pair production with NNLL threshold resummation** Times Cited: 140
By: Beneke, M.; Falgari, P.; Klein, S.; et al.
NUCLEAR PHYSICS B Volume: 855 Issue: 3 Pages: 695-741 Published: FEB 21 2012
14. **Rivet user manual** Times Cited: 156
By: Buckley, Andy; Butterworth, Jonathan; Grellscheid, David; et al.
COMPUTER PHYSICS COMMUNICATIONS Volume: 184 Issue: 12 Pages: 2803-2819 Published: DEC 2013
15. **FastJet user manual** Times Cited: 1,560
By: Cacciari, Matteo; Salam, Gavin P.; Soyez, Gregory
EUROPEAN PHYSICAL JOURNAL C Volume: 72 Issue: 3 Article Number: 1896 Published: MAR 2012
16. **The anti-k(t) jet clustering algorithm** Times Cited: 1,831
By: Cacciari, Matteo; Salam, Gavin P.; Soyez, Gregory
JOURNAL OF HIGH ENERGY PHYSICS Issue: 4 Article Number: 063 Published: APR 2008
17. **Top-pair production at hadron colliders with next-to-next-to-leading logarithmic soft-gluon resummation** Times Cited: 264
By: Cacciari, Matteo; Czakon, Michal; Mangano, Michelangelo; et al.
PHYSICS LETTERS B Volume: 710 Issue: 4-5 Pages: 612-622 Published: APR 20 2012
18. **Measurement of differential top-quark-pair production cross sections in pp collisions at root s=7 TeV** Times Cited: 78
By: Chatrchyan, S.; Khachatryan, V.; Sirunyan, A. M.; et al.
Group Author(s): CMS Collaboration
EUROPEAN PHYSICAL JOURNAL C Volume: 73 Issue: 3 Article Number: 2339 Published: MAR 2013
19. **Identification of b-quark jets with the CMS experiment** Times Cited: 311
By: Chatrchyan, S.; Khachatryan, V.; Sirunyan, A. M.; et al.
Group Author(s): CMS Collaboration
JOURNAL OF INSTRUMENTATION Volume: 8 Article Number: P04013 Published: APR 2013
20. **Performance of CMS muon reconstruction in pp collision events at root s=7TeV** Times Cited: 337
By: Chatrchyan, S.; Khachatryan, V.; Sirunyan, A. M.; et al.
Group Author(s): CMS Collaboration
JOURNAL OF INSTRUMENTATION Volume: 7 Article Number: P10002 Published: OCT 2012

21. **The CMS experiment at the CERN LHC** Times Cited: **1,505**
By: Chatrchyan, S.; Hmayakyan, G.; Khachatryan, V.; et al.
Group Author(s): CMS Collaboration
JOURNAL OF INSTRUMENTATION Volume: 3 Article Number: S08004 Published: AUG 2008
22. **String formation beyond leading colour** Times Cited: **31**
By: Christiansen, Jesper R.; Skands, Peter Z.
JOURNAL OF HIGH ENERGY PHYSICS Issue: 8 Article Number: 003 Published: AUG 3 2015
23. **Measurement of the inelastic proton-proton cross section at $\sqrt{s} = 13$ TeV** Times Cited: **1**
Group Author(s): CMS collaboration
arXiv:1802.02613
INSPIRE
24. **Investigations of the impact of the parton shower tuning in 8 in the modelling of PYTHIA tt at $\sqrt{s} =$ and 13 TeV** Times Cited: **2**
Group Author(s): CMS Collaboration
CERN Technical Report 8 No. CMS-PAS-TOP-16-021 Published: 2016
URL: <http://cds.cern.ch/record/2235192>
25. **CMS luminosity Measurement 115T the 2016 Data Period, CMS Physics Analysis Summary** Times Cited: **20**
Group Author(s): CMS Collaboration
CMS-PAS-LUM 17 001 Published: 2017
in preparation.
Publisher: CERN
26. **Measurement of the tt production cross section in the all-jets final state in pp collisions at $p s = 8$ TeV** Times Cited: **21**
Group Author(s): CMS collaboration
Eur. Phys. J. Volume: C 76 Pages: 128 Published: 2016
27. **Measurement of the production cross section of a W in association with two b jets in pp collisions at $\sqrt{s} = 8$ TeV** Times Cited: **7**
Group Author(s): CMS Collaboration
Eur. Phys. J.C Volume: 77 Pages: 92 Published: 2017
28. **Measurements of the associated production of a Z boson and b jets in pp collisions at $\sqrt{s} = 8$ TeV** Times Cited: **4**
Group Author(s): CMS Collaboration
Eur. Phys. J. C Volume: 77 Pages: 751 Published: 2017
29. **Measurement of normalized differential tt cross sections in the dilepton channel from pp collisions at $\sqrt{s} = 13$ TeV** Times Cited: **8**
Group Author(s): CMS Collaboration
J. High Energy Phys. Volume: 04 Article Number: 060 Published: 2018
30. **Measurement of the inclusive W and Z v production cross sections in pp collisions at $s = 7$ TeV** Times Cited: **81**
Group Author(s): CMS Collaboration
JHEP Volume: 10 Pages: 132 Published: 2011

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