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Inclusive search for supersymmetry using razor variables in pp collisions at root s=13 TeV

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Abstract

An inclusive search for supersymmetry using razor variables is performed in events with four or more jets and no more than one lepton. The results are based on a sample of proton-proton collisions corresponding to an integrated luminosity of 2.3 fb⁻¹ collected with the CMS experiment at a center-of-mass energy of $\sqrt{s} = 13$ TeV. No significant excess over the background prediction is observed in data, and 95% confidence level exclusion limits are placed on the masses of new heavy particles in a variety of simplified models. Assuming that pair-produced gluinos decay only via three-body processes involving third-generation quarks plus a neutralino, and that the neutralino is the lightest supersymmetric particle with a mass of 200 GeV, gluino masses below 1.6 TeV are excluded for any branching fractions for the individual gluino decay modes. For some specific decay mode scenarios, gluino masses up to 1.6 TeV are excluded. For decays to first- and second-generation quarks and a neutralino with a mass of 200 GeV, gluinos with masses up to 1.4 TeV are excluded. Pair production of top squarks decaying to a top quark and a neutralino with a mass of 100 GeV is excluded for top squark masses up to 750 GeV.

Keywords

KeyWords Plus: GLUINO PRODUCTION; SQUARK; PREDICTIONS; UNIFICATION; NATURALNESS; EXTENSION; BREAKING; STATES; MASS

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Sirunyan, A. M.; Tumasyan, A.; Adam, W.; et al. [Inclusive search for supersymmetry in pp collisions at root s=13 TeV using razor variables and boosted object identification in zero and one lepton final states.](#) JOURNAL OF HIGH ENERGY PHYSICS (2019)

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By: Aaboud, M.; Aad, G.; Abbott, B.; et al.
 Group Author(s): ATLAS Collaboration
 EUROPEAN PHYSICAL JOURNAL C Volume: 76 Issue: 10 Article Number: 547 Published: OCT 6 2016
- [Search for squarks and gluinos in final states with jets and missing transverse momentum at root s=13 TeV with the ATLAS detector](#) Times Cited: 56

By: Aaboud, M.; Aad, G.; Abbott, B.; et al.
 Group Author(s): ATLAS Collaboration
 EUROPEAN PHYSICAL JOURNAL C Volume: 76 Issue: 7 Article Number: 392 Published: JUL 12 2016
- [Search for top squarks in final states with one isolated lepton, jets, and missing transverse momentum in root s=13 TeV pp collisions with the ATLAS detector](#) Times Cited: 65

By: Aaboud, M.; Aad, G.; Abbott, B.; et al.
 Group Author(s): Collaboration, A

4. **Search for new phenomena in final states with an energetic jet and large missing transverse momentum in pp collisions at root s=13 TeV using the ATLAS detector** Times Cited: 162
By: Aaboud, M.; Aad, G.; Abbott, B.; et al.
Group Author(s): ATLAS Collaboration
PHYSICAL REVIEW D Volume: 94 Issue: 3 Article Number: 032005 Published: AUG 22 2016
5. **Search for gluinos in events with an isolated lepton, jets and missing transverse momentum at root s=13 TeV with the ATLAS detector** Times Cited: 23
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
Group Author(s): ATLAS Collaboration
EUROPEAN PHYSICAL JOURNAL C Volume: 76 Issue: 10 Article Number: 565 Published: OCT 21 2016
6. **Identification of boosted, hadronically decaying W bosons and comparisons with ATLAS data taken at root s=8 TeV** Times Cited: 79
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
Group Author(s): ATLAS Collaboration
EUROPEAN PHYSICAL JOURNAL C Volume: 76 Issue: 3 Article Number: 154 Published: MAR 17 2016
7. **Measurement of the charge asymmetry in top-quark pair production in the lepton-plus-jets final state in pp collision data at root s=8 TeV with the ATLAS detector** Times Cited: 33
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
Group Author(s): ATLAS Collaboration
EUROPEAN PHYSICAL JOURNAL C Volume: 76 Issue: 2 Article Number: 87 Published: FEB 19 2016
8. **ATLAS Run 1 searches for direct pair production of third-generation squarks at the Large Hadron Collider** Times Cited: 96
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
Group Author(s): ATLAS Collaboration
EUROPEAN PHYSICAL JOURNAL C Volume: 75 Issue: 10 Article Number: 510 Published: OCT 29 2015
9. **Multi-channel search for squarks and gluinos in root s=7 TeV pp collisions with the ATLAS detector at the LHC** Times Cited: 31
By: Aad, G.; Abajyan, T.; Abbott, B.; et al.
Group Author(s): ATLAS Collaboration
EUROPEAN PHYSICAL JOURNAL C Volume: 73 Issue: 3 Article Number: 2362 Published: MAR 2013
10. **Summary of the searches for squarks and gluinos using root s=8 TeV pp collisions with the ATLAS experiment at the LHC** Times Cited: 74
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
Group Author(s): ATLAS Collaboration
JOURNAL OF HIGH ENERGY PHYSICS Issue: 10 Article Number: 054 Published: OCT 8 2015
11. **Search for squarks and gluinos in events with isolated leptons, jets and missing transverse momentum at root s=8 TeV with the ATLAS detector** Times Cited: 65
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
Group Author(s): ATLAS Collaboration
JOURNAL OF HIGH ENERGY PHYSICS Issue: 4 Article Number: UNSP 116 Published: APR 21 2015
12. **Search for strong production of supersymmetric particles in final states with missing transverse momentum and at least three b-jets at root s=8 TeV proton-proton collisions with the ATLAS detector** Times Cited: 78
By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
JOURNAL OF HIGH ENERGY PHYSICS Issue: 10 Article Number: UNSP 024 Published: OCT 3 2014
13. **Search for direct top-squark pair production in final states with two leptons in pp collisions at root s=8 TeV with the ATLAS detector** Times Cited: 116
By: Aad, G.; Abajyan, T.; Abbott, B.; et al.
Group Author(s): ATLAS Collaboration
JOURNAL OF HIGH ENERGY PHYSICS Issue: 6 Article Number: 124 Published: JUN 19 2014
14. **Search for new phenomena in final states with large jet multiplicities and missing transverse momentum at root s=8 TeV proton-proton collisions using the ATLAS experiment** Times Cited: 110
By: Aad, G.; Abajyan, T.; Abbott, B.; et al.
Group Author(s): ATLAS Collaboration
JOURNAL OF HIGH ENERGY PHYSICS Issue: 10 Article Number: 130 Published: OCT 21 2013

15. **Search for pair production of gluinos decaying via stop and sbottom in events with b-jets and large missing transverse momentum in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector** Times Cited: 25
 By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
 Group Author(s): ATLAS Collaboration
 PHYSICAL REVIEW D Volume: 94 Issue: 3 Article Number: 032003 Published: AUG 9 2016
16. **Search for new phenomena in final states with large jet multiplicities and missing transverse momentum with ATLAS using $\sqrt{s}=13$ TeV proton-proton collisions** Times Cited: 28
 By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
 Group Author(s): ATLAS Collaboration
 PHYSICS LETTERS B Volume: 757 Pages: 334-355 Published: JUN 10 2016
17. **The Fast Simulation of the CMS Detector at LHC** Times Cited: 84
 By: Abdullin, S.; Beaudette, P. Azzi F.; Jannot, P.; et al.
 Group Author(s): CMS Collaboration
 INTERNATIONAL CONFERENCE ON COMPUTING IN HIGH ENERGY AND NUCLEAR PHYSICS (CHEP 2010): EVENT PROCESSING Book Series: Journal of Physics Conference Series Volume: 331 Article Number: 032049 Published: 2011
18. **GEANT4-a simulation toolkit** Times Cited: 11,084
 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
19. **NLO single-top production matched with shower in POWHEG: s- and t-channel contributions** Times Cited: 261
 By: Alioli, Simone; Nason, Paolo; Oleari, Carlo; et al.
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 9 Article Number: 111 Published: SEP 2009
20. **The automated computation of tree-level and next-to-leading order differential cross sections, and their matching to parton shower simulations** Times Cited: 2,291
 By: Alwall, J.; Frederix, R.; Frixione, S.; et al.
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 7 Article Number: 079 Published: JUL 17 2014
21. **MadGraph 5: going beyond** Times Cited: 1,700
 By: Alwall, Johan; Herquet, Michel; Maltoni, Fabio; et al.
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 6 Article Number: 128 Published: JUN 2011
22. **COMPARISON OF GRAND UNIFIED THEORIES WITH ELECTROWEAK AND STRONG COUPLING-CONSTANTS MEASURED AT LEP** Times Cited: 1,186
 By: AMALDI, U; DEBOER, W; FURSTENAU, H
 PHYSICS LETTERS B Volume: 260 Issue: 3-4 Pages: 447-455 Published: MAY 16 1991
23. Title: [not available] Times Cited: 1
 Group Author(s): ATLAS and CMS Collaborations
 CERN Technical Reports No. ATL-PHYS-PUB-2011-011 and No. CMS-NOTE-2011-005 Published: 2011
24. **Search for supersymmetry at $\sqrt{s}=8$ TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector** Times Cited: 60
 Group Author(s): ATLAS collaboration
 JHEP Volume: 06 Pages: 035 Published: 2014
 INSPIRE
25. **Search for direct pair production of the top squark in all-hadronic final states in proton-proton collisions at $\sqrt{s}=8$ TeV with the atlas detector** Times Cited: 48
 Group Author(s): ATLAS Collaboration
 Journal of High Energy Physics Published: 2014
26. **Parton distributions for the LHC run II** Times Cited: 811
 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

27. **GAUGE-MODELS WITH SPONTANEOUSLY BROKEN LOCAL SUPERSYMMETRY** Times Cited: 1,237
By: BARBIERI, R; FERRARA, S; SAVOY, CA
PHYSICS LETTERS B Volume: 119 Issue: 4-6 Pages: 343-347 Published: 1982
28. **Squark and gluino production at hadron colliders** Times Cited: 624
By: Beenakker, W; Hopker, R; Spira, M; et al.
NUCLEAR PHYSICS B Volume: 492 Issue: 1-2 Pages: 51-103 Published: MAY 12 1997
29. **SQUARK AND GLUINO HADROPRODUCTION** Times Cited: 260
By: Beenakker, Wim; Brensing, Silja; Kraemer, Michael; et al.
INTERNATIONAL JOURNAL OF MODERN PHYSICS A Volume: 26 Issue: 16 Pages: 2637-2664 Published: JUN 30 2011
30. **Soft-gluon resummation for squark and gluino hadroproduction** Times Cited: 220
By: Beenakker, Wim; Brensing, Silja; Kraemer, Michael; et al.
JOURNAL OF HIGH ENERGY PHYSICS Issue: 12 Article Number: 041 Published: DEC 2009

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