

Free Full Text from Publisher

Look Up Full Text

Find PDF

Full Text Options

Export...

Add to Marked List

1 of 1

## Search for supersymmetry in events with one lepton and multiple jets in proton-proton collisions at root s=13 TeV

By: Khachatryan, V (Khachatryan, V.)<sup>[1]</sup>; Sirunyan, AM (Sirunyan, A. M.)<sup>[1]</sup>; Tumasyan, A (Tumasyan, A.)<sup>[1]</sup>; Adam, W (Adam, W.)<sup>[2]</sup>; Asilar, E (Asilar, E.)<sup>[2]</sup>; Bergauer, T (Bergauer, T.)<sup>[2]</sup>; Brandstetter, J (Brandstetter, J.)<sup>[2]</sup>; Brondolin, E (Brondolin, E.)<sup>[2]</sup>; Dragicevic, M (Dragicevic, M.)<sup>[2]</sup>; Ero, J (Eroe, J.)<sup>[2]</sup> ...[More](#)

Group Author(s): [CMS Collaboration](#)

[View Web of Science ResearcherID and ORCID](#)

### PHYSICAL REVIEW D

Volume: 95 Issue: 1

Article Number: 012011

DOI: 10.1103/PhysRevD.95.012011

Published: JAN 27 2017

Document Type: Article

[View Journal Impact](#)

### Abstract

A search for supersymmetry is performed in events with a single electron or muon in proton-proton collisions at a center-of-mass energy of 13 TeV. The data were recorded by the CMS experiment at the LHC and correspond to an integrated luminosity of 2.3 fb<sup>-1</sup>. Several exclusive search regions are defined based on the number of jets and b-tagged jets, the scalar sum of the jet transverse momenta, and the scalar sum of the missing transverse momentum and the transverse momentum of the lepton. The observed event yields in data are consistent with the expected backgrounds from standard model processes. The results are interpreted using two simplified models of supersymmetric particle spectra, both of which describe gluino pair production. In the first model, each gluino decays via a three-body process to top quarks and a neutralino, which is associated with the observed missing transverse momentum in the event. Gluinos with masses up to 1.6 TeV are excluded for neutralino masses below 600 GeV. In the second model, each gluino decays via a three-body process to two light quarks and a chargino, which subsequently decays to a W boson and a neutralino. The mass of the chargino is taken to be midway between the gluino and neutralino masses. In this model, gluinos with masses below 1.4 TeV are excluded for neutralino masses below 700 GeV.

### Keywords

KeyWords Plus: [SQUARK](#); [MODEL](#); [INVARIANT](#); [EXTENSION](#)

### Author Information

Reprint Address: Khachatryan, V (reprint author)

+ Yerevan Phys Inst, Yerevan, Armenia.

#### Addresses:

+ [ 1 ] Yerevan Phys Inst, Yerevan, Armenia

[ 2 ] Inst Hochenergiephys OeAW, Vienna, Austria

+ [ 3 ] Natl Ctr Particle & High Energy Phys, Minsk, BELARUS

+ [ 4 ] Univ Antwerp, Antwerp, Belgium

+ [ 5 ] Vrije Univ Brussel, Brussels, Belgium

+ [ 6 ] Univ Libre Bruxelles, Brussels, Belgium

+ [ 7 ] Univ Ghent, Ghent, Belgium

+ [ 8 ] Univ Catholic Louvain, Louvain, Belgium

+ [ 9 ] Univ Mons, Mons, Belgium

+ [ 10 ] Ctr Brasileiro Pesquisas Fis, Rio De Janeiro, Brazil

+ [ 11 ] Univ Estado Rio de Janeiro, Rio De Janeiro, Brazil

+ [ 12 ] Univ Estadual Paulista, Sao Paulo, Brazil

### Citation Network

In Web of Science Core Collection

# 3

Times Cited

[Create Citation Alert](#)

All Times Cited Counts

[3 in All Databases](#)

[See more counts](#)

# 65

Cited References

[View Related Records](#)

### Most recently cited by:

Ferrari, Sacha; Hambye, Thomas; Heeck, Julian; et al.  
[SO\(10\) paths to dark matter.](#)  
PHYSICAL REVIEW D (2019)

Riggs, Peter J.  
[The Physical State of the Universe in the Planck Era.](#)  
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES (2018)

[View All](#)

### Use in Web of Science

Web of Science Usage Count

# 1

Last 180 Days

# 38

Since 2013

[Learn more](#)

### This record is from:

Web of Science Core Collection  
- Science Citation Index Expanded

### Suggest a correction

If you would like to improve the quality of the data in this record, please [suggest a correction](#).

- + [ 13 ] Univ Fed ABC, Sao Paulo, Brazil
- + [ 14 ] Inst Nucl Energy Res, Sofia, Bulgaria
- + [ 15 ] Univ Sofia, Sofia, Bulgaria
- + [ 16 ] Beihang Univ, Beijing, Peoples R China
- + [ 17 ] Inst High Energy Phys, Beijing, Peoples R China
- + [ 18 ] Peking Univ, State Key Lab Nucl Phys & Technol, Beijing, Peoples R China
- + [ 19 ] Univ Los Andes, Bogota, Colombia
- + [ 20 ] Univ Split, Fac Elect Engrg Mech Engrg & Naval Architecture, Split, Croatia
- + [ 21 ] Univ Split, Fac Sci, Split, Croatia
- [ 22 ] Inst Rudjer Boskov, Zagreb, Croatia
- + [ 23 ] Univ Cyprus, Nicosia, Cyprus
- + [ 24 ] Charles Univ Prague, Prague, Czech Republic
- [ 25 ] Univ San Francisco Quito, Quito, Ecuador
- + [ 26 ] Acad Sci Res & Technol Arab Republ Egypt, Egyptian Network High Energy Phys, Cairo, Egypt
- + [ 27 ] NICPB, Tallinn, Estonia
- + [ 28 ] Univ Helsinki, Dept Phys, Helsinki, Finland
- + [ 29 ] Helsinki Inst Phys, Helsinki, Finland
- + [ 30 ] Lappeenranta Univ Technol, Lappeenranta, Finland
- + [ 31 ] Univ Paris Saclay, CEA, IRFU, Gif Sur Yvette, France
- + [ 32 ] Ecole Polytechn, IN2P3, CNRS, Lab Leprince Ringuet, Palaiseau, France
- + [ 33 ] Univ Strasbourg, Univ Haute Alsace Mulhouse, CNRS, IN2P3, Inst Pluridisciplinaire Hubert Curien, Strasbourg, France
- + [ 34 ] IN2P3, Inst Natl Phys Nucl & Phys Particules, CNRS, Ctre Calcul, Villeurbanne, France
- + [ 35 ] Univ Claude Bernard Lyon 1, CNRS, IN2P3, Inst Phys Nucl Lyon, Villeurbanne, France
- + [ 36 ] Georgian Tech Univ, Tbilisi, Georgia
- [ 37 ] Tbilisi State Univ, Tbilisi, Georgia
- + [ 38 ] Rhein Westfal TH Aachen, Phys Inst 1, Aachen, Germany
- + [ 39 ] Rhein Westfal TH Aachen, Phys Inst A 3, Aachen, Germany
- + [ 40 ] Rhein Westfal TH Aachen, Phys Inst B 3, Aachen, Germany
- + [ 41 ] Deutsches Elekt Synchrotron, Hamburg, Germany
- + [ 42 ] Univ Hamburg, Hamburg, Germany
- + [ 43 ] Inst Expt Kernphys, Karlsruhe, Germany
- + [ 44 ] NCSR Demokritos, Inst Nucl & Particle Phys INPP, Aghia Paraskevi, Greece
- + [ 45 ] Univ Athens, Athens, Greece
- + [ 46 ] Univ Ioannina, Ioannina, Greece
- + [ 47 ] Eotvos Lorand Univ, MTA ELTE Lendulet CMS Particle & Nucl Phys Grp, Budapest, Hungary
- + [ 48 ] Wigner Res Ctr Phys, Budapest, Hungary
- + [ 49 ] Inst Nucl Res ATOMKI, Debrecen, Hungary
- + [ 50 ] Univ Debrecen, Debrecen, Hungary
- + [ 51 ] Natl Inst Sci Educ & Res, Bhubaneswar, Orissa, India
- + [ 52 ] Panjab Univ, Chandigarh, India
- [ 53 ] Univ Delhi, Delhi, India
- + [ 54 ] Saha Inst Nucl Phys, Kolkata, India
- + [ 55 ] Indian Inst Technol Madras, Madras, Tamil Nadu, India
- + [ 56 ] Bhabha Atom Res Ctr, Mumbai, Maharashtra, India
- + [ 57 ] Tata Inst Fundamental Research A, Mumbai, Maharashtra, India
- + [ 58 ] Tata Inst Fundamental Research B, Mumbai, Maharashtra, India
- + [ 59 ] Indian Inst Sci Educ & Res IISER, Pune, Maharashtra, India
- [ 60 ] Inst Res Fundamental Sci IPM, Tehran, Iran

- + [ 61 ] Univ Coll Dublin, Dublin, Ireland
- + [ 62 ] Ist Nazl Fis Nucl, Sez Bari, Bari, Italy
- + [ 63 ] Univ Bari, Bari, Italy
- + [ 64 ] Politecn Bari, Bari, Italy
- + [ 65 ] Ist Nazl Fis Nucl, Sez Bologna, Bologna, Italy
- + [ 66 ] Univ Bologna, Bologna, Italy
- + [ 67 ] Ist Nazl Fis Nucl, Sez Catania, Catania, Italy
- + [ 68 ] Univ Catania, Catania, Italy
- + [ 69 ] Ist Nazl Fis Nucl, Sez Firenze, Florence, Italy
- + [ 70 ] Univ Florence, Florence, Italy
- + [ 71 ] Ist Nazl Fis Nucl, Lab Nazl Frascati, Frascati, Italy
- + [ 72 ] Ist Nazl Fis Nucl, Sez Genova, Genoa, Italy
- + [ 73 ] Univ Genoa, Genoa, Italy
- + [ 74 ] Ist Nazl Fis Nucl, Sez Milano Bicocca, Milan, Italy
- + [ 75 ] Univ Milano Bicocca, Milan, Italy
- + [ 76 ] Ist Nazl Fis Nucl, Sez Napoli, Rome, Italy
- + [ 77 ] Univ Naples Federico II, Rome, Italy
- + [ 78 ] Univ Basilicata, Rome, Italy
- + [ 79 ] Univ G Marconi, Rome, Italy
- + [ 80 ] Ist Nazl Fis Nucl, Sez Padova, Trento, Italy
- + [ 81 ] Univ Padua, Trento, Italy
- + [ 82 ] Univ Trento, Trento, Italy
- + [ 83 ] Ist Nazl Fis Nucl, Sez Pavia, Pavia, Italy
- + [ 84 ] Univ Pavia, Pavia, Italy
- + [ 85 ] Ist Nazl Fis Nucl, Sez Perugia, Perugia, Italy
- + [ 86 ] Univ Perugia, Perugia, Italy
- + [ 87 ] Ist Nazl Fis Nucl, Sez Pisa, Pisa, Italy
- + [ 88 ] Univ Pisa, Pisa, Italy
- + [ 89 ] Scuola Normale Super Pisa, Pisa, Italy
- + [ 90 ] Ist Nazl Fis Nucl, Sez Roma, Rome, Italy
- + [ 91 ] Univ Roma, Rome, Italy
- + [ 92 ] Ist Nazl Fis Nucl, Sez Torino, Novara, Italy
- + [ 93 ] Univ Torino, Novara, Italy
- + [ 94 ] Univ Piemonte Orientale, Novara, Italy
- + [ 95 ] Ist Nazl Fis Nucl, Sez Trieste, Trieste, Italy
- + [ 96 ] Univ Trieste, Trieste, Italy
- + [ 97 ] Kyungpook Natl Univ, Daegu, South Korea
- + [ 98 ] Chonbuk Natl Univ, Jeonju, South Korea
- + [ 99 ] Hanyang Univ, Seoul, South Korea
- + [ 100 ] Korea Univ, Seoul, South Korea
- + [ 101 ] Seoul Natl Univ, Seoul, South Korea
- + [ 102 ] Univ Seoul, Seoul, South Korea
- + [ 103 ] Sungkyunkwan Univ, Suwon, South Korea
- + [ 104 ] Vilnius Univ, Vilnius, Lithuania
- + [ 105 ] Univ Malaya, Natl Ctr Particle Phys, Kuala Lumpur, Malaysia
- + [ 106 ] IPN, Ctr Invest & Estudios Avanzados, Mexico City, DF, Mexico
- + [ 107 ] Univ Iberoamer, Mexico City, DF, Mexico
- + [ 108 ] Benemerita Univ Autonoma Puebla, Puebla, Mexico
- + [ 109 ] Univ Autonoma San Luis Potosi, San Luis Potosi, Mexico

- + [ 110 ] Univ Auckland, Auckland, New Zealand
- + [ 111 ] Univ Canterbury, Christchurch, New Zealand
- + [ 112 ] Quaid I Azam Univ, Natl Ctr Phys, Islamabad, Pakistan
- + [ 113 ] Natl Ctr Nucl Res, Otwock, Poland
- + [ 114 ] Univ Warsaw, Fac Phys, Inst Expt Phys, Warsaw, Poland
- + [ 115 ] Lab Instrument & Fis Expt Particulas, Lisbon, Portugal
- + [ 116 ] Joint Inst Nucl Res, Dubna, Russia
- + [ 117 ] Petersburg Nucl Phys Inst, St Petersburg, Russia
- + [ 118 ] Inst Nucl Res, Moscow, Russia
- + [ 119 ] Inst Theoret & Expt Phys, Moscow, Russia
- + [ 120 ] Moscow Inst Phys & Technol, Moscow, Russia
- + [ 121 ] Natl Res Nucl Univ, Moscow Engr Phys Inst MEPhI, Moscow, Russia
- + [ 122 ] PN Lebedev Phys Inst, Moscow, Russia
- + [ 123 ] Lomonosov Moscow State Univ, Skobeltsyn Inst Nucl Phys, Moscow, Russia
- [ 124 ] Novosibirsk State Univ NSU, Novosibirsk, Russia
- + [ 125 ] Inst High Energy Phys, State Res Ctr Russian Fed, Protvino, Russia
- + [ 126 ] Univ Belgrade, Fac Phys, Belgrade, Serbia
- + [ 127 ] Vinca Inst Nucl Sci, Belgrade, Serbia
- [ 128 ] Ctr Invest Energet Medioambient & Tecnol CIEMAT, Madrid, Spain
- + [ 129 ] Univ Autonoma Madrid, Madrid, Spain
- + [ 130 ] Univ Oviedo, Oviedo, Spain
- + [ 131 ] Univ Cantabria, CSIC, Inst Fis Cantabria IFCA, Santander, Spain
- + [ 132 ] European Org Nucl Res, CERN, Geneva, Switzerland
- + [ 133 ] Paul Scherrer Inst, Villigen, Switzerland
- + [ 134 ] Swiss Fed Inst Technol, Inst Particle Phys, Zurich, Switzerland
- + [ 135 ] Univ Zurich, Zurich, Switzerland
- + [ 136 ] Natl Cent Univ, Chungli, Taiwan
- [ 137 ] Natl Taiwan Univ NTU, Taipei, Taiwan
- + [ 138 ] Chulalongkorn Univ, Fac Sci, Dept Phys, Bangkok, Thailand
- + [ 139 ] Cukurova Univ, Adana, Turkey
- + [ 140 ] Middle East Tech Univ, Phys Dept, Ankara, Turkey
- + [ 141 ] Bogazici Univ, Istanbul, Turkey
- + [ 142 ] Istanbul Tech Univ, Istanbul, Turkey
- + [ 143 ] Natl Acad Sci Ukraine, Inst Scintillat Mat, Kharkov, Ukraine
- + [ 144 ] Kharkov Inst Phys & Technol, Natl Sci Ctr, Kharkov, Ukraine
- + [ 145 ] Univ Bristol, Bristol, Avon, England
- + [ 146 ] Rutherford Appleton Lab, Didcot, Oxon, England
- + [ 147 ] Imperial Coll, London, England
- + [ 148 ] Brunel Univ, Uxbridge, Middx, England
- + [ 149 ] Baylor Univ, Waco, TX 76798 USA
- + [ 150 ] Univ Alabama, Tuscaloosa, AL USA
- + [ 151 ] Boston Univ, Boston, MA 02215 USA
- + [ 152 ] Brown Univ, Providence, RI 02912 USA
- + [ 153 ] Univ Calif Davis, Davis, CA 95616 USA
- + [ 154 ] Univ Calif Los Angeles, Los Angeles, CA USA
- + [ 155 ] Univ Calif Riverside, Riverside, CA 92521 USA
- + [ 156 ] Univ Calif San Diego, La Jolla, CA 92093 USA
- + [ 157 ] Univ Calif Santa Barbara, Santa Barbara, CA 93106 USA
- + [ 158 ] CALTECH, Pasadena, CA 91125 USA

- + [ 159 ] Carnegie Mellon Univ, Pittsburgh, PA 15213 USA
- + [ 160 ] Univ Colorado Boulder, Boulder, CO USA
- + [ 161 ] Cornell Univ, Ithaca, NY USA
- + [ 162 ] Fairfield Univ, Fairfield, CT 06430 USA
- + [ 163 ] Fermilab Natl Accelerator Lab, Batavia, IL 60510 USA
- + [ 164 ] Univ Florida, Gainesville, FL USA
- + [ 165 ] Florida Int Univ, Miami, FL 33199 USA
- + [ 166 ] Florida State Univ, Tallahassee, FL 32306 USA
- + [ 167 ] Florida Inst Technol, Melbourne, FL 32901 USA
- + [ 168 ] Univ Illinois, Chicago, IL USA
- + [ 169 ] Univ Iowa, Iowa City, IA USA
- + [ 170 ] Johns Hopkins Univ, Baltimore, MD USA
- + [ 171 ] Univ Kansas, Lawrence, KS 66045 USA
- + [ 172 ] Kansas State Univ, Manhattan, KS 66506 USA
- + [ 173 ] Lawrence Livermore Natl Lab, Livermore, CA USA
- + [ 174 ] Univ Maryland, College Pk, MD 20742 USA
- + [ 175 ] MIT, 77 Massachusetts Ave, Cambridge, MA 02139 USA
- + [ 176 ] Univ Minnesota, Minneapolis, MN USA
- + [ 177 ] Univ Mississippi, Oxford, MS USA
- + [ 178 ] Univ Nebraska Lincoln, Lincoln, NE USA
- + [ 179 ] SUNY Buffalo, Buffalo, NY USA
- + [ 180 ] Northeastern Univ, Boston, MA 02115 USA
- + [ 181 ] Northwestern Univ, Evanston, IL USA
- + [ 182 ] Univ Notre Dame, Notre Dame, IN USA
- + [ 183 ] Ohio State Univ, Columbus, OH 43210 USA
- + [ 184 ] Princeton Univ, Princeton, NJ 08544 USA
- + [ 185 ] Univ Puerto Rico, Mayaguez, PR USA
- + [ 186 ] Purdue Univ, W Lafayette, IN 47907 USA
- + [ 187 ] Purdue Univ Calumet, Hammond, IN USA
- + [ 188 ] Rice Univ, Houston, TX USA
- + [ 189 ] Univ Rochester, Rochester, NY USA
- + [ 190 ] Rutgers State Univ, Piscataway, NJ USA
- + [ 191 ] Univ Tennessee, Knoxville, TN USA
- + [ 192 ] Texas A&M Univ, College Stn, TX USA
- + [ 193 ] Texas Tech Univ, Lubbock, TX 79409 USA
- + [ 194 ] Vanderbilt Univ, 221 Kirkland Hall, Nashville, TN 37235 USA
- + [ 195 ] Univ Virginia, Charlottesville, VA USA
- + [ 196 ] Wayne State Univ, Detroit, MI USA
- + [ 197 ] Univ Wisconsin Madison, Madison, WI USA
- + [ 198 ] Vienna Univ Technol, Vienna, Austria
- + [ 199 ] Peking Univ, State Key Lab Nucl Phys & Technol, Beijing, Peoples R China
- + [ 200 ] Univ Strasbourg, Univ Haute Alsace Mulhouse, CNRS, IN2P3, Inst Pluridisciplinaire Hubert Curien, Strasbourg, France
- + [ 201 ] Univ Estadual Campinas, Campinas, SP, Brazil
- + [ 202 ] Univ Fed Pelotas, Pelotas, Brazil
- + [ 203 ] Univ Libre Bruxelles, Brussels, Belgium
- + [ 204 ] DESY, Hamburg, Germany
- + [ 205 ] Joint Inst Nucl Res, Dubna, Russia
- + [ 206 ] British Univ Egypt, Cairo, Egypt

- + [ 207 ] Zewail City Sci & Technol, Zewail, Egypt
- + [ 208 ] Univ Haute Alsace, Mulhouse, France
- + [ 209 ] European Org Nucl Res, CERN, Geneva, Switzerland
- + [ 210 ] Lomonosov Moscow State Univ, Skobeltsyn Inst Nucl Phys, Moscow, Russia
- [ 211 ] Tbilisi State Univ, Tbilisi, Georgia
- + [ 212 ] Rhein Westfal TH Aachen, Phys Inst A 3, Aachen, Germany
- + [ 213 ] Univ Hamburg, Hamburg, Germany
- + [ 214 ] Brandenburg Tech Univ Cottbus, Cottbus, Germany
- + [ 215 ] Inst Nucl Res ATOMKI, Debrecen, Hungary
- + [ 216 ] Eotvos Lorand Univ, MTA ELTE Lendulet CMS Particle & Nucl Phys Grp, Budapest, Hungary
- + [ 217 ] Univ Debrecen, Debrecen, Hungary
- + [ 218 ] Indian Inst Sci Educ & Res, Bhopal, India
- + [ 219 ] Inst Phys, Bhubaneswar, Orissa, India
- + [ 220 ] Univ Visva Bharati, Santini Ketan, W Bengal, India
- [ 221 ] Univ Ruhuna, Matara, Sri Lanka
- + [ 222 ] Isfahan Univ Technol, Esfahan, Iran
- + [ 223 ] Univ Tehran, Dept Engr Sci, Tehran, Iran
- + [ 224 ] Islam Azad Univ, Plasma Phys Res Ctr, Sci & Res Branch, Tehran, Iran
- + [ 225 ] Univ Siena, Siena, Italy
- + [ 226 ] Purdue Univ, W Lafayette, IN 47907 USA
- + [ 227 ] Int Islam Univ Malaysia, Kuala Lumpur, Malaysia
- [ 228 ] Agensi Nuklear Malaysia, MOSTI, Kajang, Malaysia
- [ 229 ] Consejo Nacl Ciencia & Technol, Mexico City, DF, Mexico
- + [ 230 ] Warsaw Univ Technol, Inst Elect Syst, Warsaw, Poland
- + [ 231 ] Inst Nucl Res, Moscow, Russia
- + [ 232 ] Natl Res Nucl Univ, Moscow Engr Phys Inst MEPhI, Moscow, Russia
- + [ 233 ] St Petersburg State Polytechn Univ, St Petersburg, Russia
- + [ 234 ] Univ Florida, Gainesville, FL USA
- + [ 235 ] PN Lebedev Phys Inst, Moscow, Russia
- + [ 236 ] CALTECH, Pasadena, CA USA
- + [ 237 ] Budker Inst Nucl Phys, Novosibirsk, Russia
- + [ 238 ] Univ Belgrade, Fac Phys, Belgrade, Serbia
- + [ 239 ] Univ Roma, Ist Nazl Fis Nucl, Sez Roma, Rome, Italy
- + [ 240 ] Ist Nazl Fis Nucl, Scuola Normale & Sez, Pisa, Italy
- + [ 241 ] Univ Athens, Athens, Greece
- + [ 242 ] Riga Tech Univ, Riga, Latvia
- + [ 243 ] Inst Theoret & Expt Phys, Moscow, Russia
- + [ 244 ] Albert Einstein Ctr Fundamental Phys, Bern, Switzerland
- + [ 245 ] Adiyaman Univ, Adiyaman, Turkey
- + [ 246 ] Mersin Univ, Mersin, Turkey
- + [ 247 ] Cag Univ, Mersin, Turkey
- + [ 248 ] Piri Reis Univ, Istanbul, Turkey
- + [ 249 ] Gaziosmanpasa Univ, Tokat, Turkey
- + [ 250 ] Ozyegin Univ, Istanbul, Turkey
- + [ 251 ] Izmir Inst Technol, Izmir, Turkey
- + [ 252 ] Marmara Univ, Istanbul, Turkey
- + [ 253 ] Kafkas Univ, Kars, Turkey
- + [ 254 ] Istanbul Bilgi Univ, Istanbul, Turkey
- + [ 255 ] Yildiz Tech Univ, Istanbul, Turkey

- + [ 256 ] Hacettepe Univ, Ankara, Turkey
- + [ 257 ] Rutherford Appleton Lab, Didcot, Oxon, England
- + [ 258 ] Univ Southampton, Sch Phys & Astron, Southampton, Hants, England
- + [ 259 ] Inst Astrofis Canarias, San Cristobal la Laguna, Spain
- + [ 260 ] Utah Valley Univ, Orem, UT USA
- + [ 261 ] Univ Belgrade, Fac Phys, Belgrade, Serbia
- + [ 262 ] Vinca Inst Nucl Sci, Belgrade, Serbia
- + [ 263 ] Univ Roma, Fac Ingn, Rome, Italy
- + [ 264 ] Argonne Natl Lab, 9700 S Cass Ave, Argonne, IL 60439 USA
- + [ 265 ] Erzincan Univ, Erzincan, Turkey
- + [ 266 ] Mimar Sinan Univ, Istanbul, Turkey
- [ 267 ] Texas A&M Univ, Qatar, Doha, Qatar
- + [ 268 ] Kyungpook Natl Univ, Daegu, South Korea

### Funding

Funding Agency	Grant Number
BMWF (Austria)	
FWF (Austria)	
FNRS (Belgium)	
FWO (Belgium)	
CNPq (Brazil)	
CAPES (Brazil)	
FAPERJ (Brazil)	
FAPESP (Brazil)	
MES (Bulgaria)	
CERN	
CAS (China)	
MoST (China)	
NSFC (China)	
COLCIENCIAS (Colombia)	
MSES (Croatia)	
CSF (Croatia)	
RPF (Cyprus)	
SENESCYT (Ecuador)	
MoER (Estonia)	
ERC IUT (Estonia)	
ERDF (Estonia)	
Academy of Finland (Finland)	
MEC (Finland)	
HIP (Finland)	
CEA (France)	
CNRS/IN2P3 (France)	
BMBF (Germany)	
DFG (Germany)	
HGF (Germany)	
GSRT (Greece)	
OTKA (Hungary)	
NIH (Hungary)	

DAE (India)	
DST (India)	
IPM (Iran)	
SFI (Ireland)	
INFN (Italy)	
MSIP (Republic of Korea)	
NRF (Republic of Korea)	
LAS (Lithuania)	
MOE (Malaysia)	
UM (Malaysia)	
BUAP (Mexico)	
CINVESTAV (Mexico)	
CONACYT (Mexico)	
LNS (Mexico)	
SEP (Mexico)	
UASLP-FAI (Mexico)	
MBIE (New Zealand)	
PAEC (Pakistan)	
MSHE (Poland)	
NSC (Poland)	
FCT (Portugal)	
JINR (Dubna)	
MON (Russia)	
RosAtom (Russia)	
RAS (Russia)	
RFBR (Russia)	
MESTD (Serbia)	
SEIDI (Spain)	
CPAN (Spain)	
Swiss Funding Agencies (Switzerland)	
MST (Taipei)	
TheEPCenter (Thailand)	
IPST (Thailand)	
STAR (Thailand)	
NSTDA (Thailand)	
TUBITAK (Turkey)	
TAEK (Turkey)	
NASU (Ukraine)	
SFFR (Ukraine)	
STFC (United Kingdom)	
DOE (USA)	
NSF (USA)	
Marie-Curie program (European Union)	
European Research Council (European Union)	
EPLANET (European Union)	
Leventis Foundation	
A. P. Sloan Foundation	



Alexander von Humboldt Foundation	
Belgian Federal Science Policy Office	
Fonds pour la Formation a la Recherche dans l'Industrie et dans l'Agriculture (FRRIA-Belgium)	
Agentschap voor Innovatie door Wetenschap en Technologie (IWT-Belgium)	
Ministry of Education, Youth and Sports (MEYS) of the Czech Republic	
Council of Science and Industrial Research, India	
HOMING PLUS program of the Foundation for Polish Science	
European Union	
Regional Development Fund	
Mobility Plus program of the Ministry of Science and Higher Education	
National Science Center NCN(Poland)	Harmonia 2014/14/M/ST2/00428 Opus 2013/11/B/ST2/04202, 2014/13/B/ST2/02543 2014/15/B/ST2/03998 Sonata-bis 2012/07/E/ST2/01406
Thalis program - EU-ESF	
Aristeia program - EU-ESF	
Greek NSRF	
National Priorities Research Program by Qatar National Research Fund	
Programa Clarin-COFUND del Principado de Asturias	
Rachadapisek Sompot Fund for Postdoctoral Fellowship (Thailand)	
Chulalongkorn University (Thailand)	
Chulalongkorn Academic into Its 2nd Century Project Advancement Project (Thailand)	
Welch Foundation	C-1845
Science and Technology Facilities Council	CMS GRIDPP ST/K001256/1 ST/N000250/1

[View funding text](#)

#### Publisher

AMER PHYSICAL SOC, ONE PHYSICS ELLIPSE, COLLEGE PK, MD 20740-3844 USA

#### Journal Information

Impact Factor: [Journal Citation Reports](#)

#### Categories / Classification

Research Areas: Astronomy & Astrophysics; Physics

Web of Science Categories: Astronomy & Astrophysics; Physics, Particles & Fields

#### See more data fields

◀ 1 of 1 ▶

## Cited References: 65

Showing 30 of 65 [View All in Cited References page](#)

(from Web of Science Core Collection)

### 1. [Measurement of the Inelastic Proton-Proton Cross Section at root s=13 TeV with the ATLAS Detector at the LHC](#)

Times Cited: 82

By: Aaboud, M.; Aad, G.; Abbott, B.; et al.

Group Author(s): ATLAS Collaboration

PHYSICAL REVIEW LETTERS Volume: 117 Issue: 18 Article Number: 182002 Published: OCT 26 2016

2. [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
  
3. [Measurement of the polarisation of W bosons produced with large transverse momentum in pp collisions at root s=7 TeV with the ATLAS experiment](#) Times Cited: 35  
 By: Aad, G.; Abbott, B.; Abdallah, J.; et al.  
 Group Author(s): ATLAS Collaboration  
 EUROPEAN PHYSICAL JOURNAL C Volume: 72 Issue: 5 Article Number: 2001 Published: MAY 2012
  
4. [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
  
5. [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
  
6. [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 root 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
  
7. [Further search for supersymmetry at root s=7 TeV in final states with jets, missing transverse momentum, and isolated leptons with the ATLAS detector](#) Times Cited: 54  
 By: Aad, G.; Abajyan, T.; Abbott, B.; et al.  
 Group Author(s): ATLAS Collaboration  
 PHYSICAL REVIEW D Volume: 86 Issue: 9 Article Number: 092002 Published: NOV 2 2012
  
8. [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
  
9. [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
  
10. [A general framework for implementing NLO calculations in shower Monte Carlo programs: the POWHEG BOX](#) Times Cited: 1,000  
 By: Alioli, Simone; Nason, Paolo; Oleari, Carlo; et al.  
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 6 Article Number: 043 Published: JUN 2010
  
11. [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
  
12. [Simplified models for LHC new physics searches](#) Times Cited: 225  
 By: Alves, Daniele; Arkani-Hamed, Nima; Arora, Sanjay; et al.  
 Group Author(s): LHC New Phys Working Grp  
 JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS Volume: 39 Issue: 10 Article Number: 105005 Published: OCT 2012
  
13. [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

14. **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
  
15. **Simplified models for a first characterization of new physics at the LHC** Times Cited: **208**  
By: Alwall, Johan; Schuster, Philip C.; Toro, Natalia  
PHYSICAL REVIEW D Volume: 79 Issue: 7 Article Number: 075020 Published: APR 2009
  
16. **Model-independent jets plus missing energy searches** Times Cited: **106**  
By: Alwall, Johan; Le, My-Phuong; Lisanti, Mariangela; et al.  
PHYSICAL REVIEW D Volume: 79 Issue: 1 Article Number: 015005 Published: JAN 2009
  
17. Title: [not available] Times Cited: **31**  
By: Arkani-Hamed, N.  
arXiv:hep-ph/0703088
  
18. **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
  
19. **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
  
20. **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
  
21. **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
  
22. **8 TeV** Times Cited: **1**  
By: Bern, Z.; Diana, G.; Dixon, L. J.; et al.  
Eur. Phys. J. C Volume: 75 Pages: 542 Published: 2015  
[\[Show additional data\]](#)
  
23. **Left-handed W bosons at the LHC** Times Cited: **37**  
By: Bern, Z.; Diana, G.; Dixon, L. J.; et al.  
PHYSICAL REVIEW D Volume: 84 Issue: 3 Article Number: 034008 Published: AUG 5 2011
  
24. **FastJet user manual** Times Cited: **1,775**  
By: Cacciari, Matteo; Salam, Gavin P.; Soyez, Gregory  
EUROPEAN PHYSICAL JOURNAL C Volume: 72 Issue: 3 Article Number: 1896 Published: MAR 2012
  
25. **The anti-k(t) jet clustering algorithm** Times Cited: **2,334**  
By: Cacciari, Matteo; Salam, Gavin P.; Soyez, Gregory  
JOURNAL OF HIGH ENERGY PHYSICS Issue: 4 Article Number: 063 Published: APR 2008
  
26. **Pileup subtraction using jet areas** Times Cited: **489**  
By: Cacciari, Matteo; Salam, Gavin P.  
PHYSICS LETTERS B Volume: 659 Issue: 1-2 Pages: 119-126 Published: JAN 17 2008
  
27. **Search for top-squark pair production in the single-lepton final state in pp collisions at root s=8 TeV** Times Cited: **218**  
By: Chatrchyan, S.; Khachatryan, V.; Sirunyan, A. M.; et al.  
Group Author(s): CMS Collaboration  
EUROPEAN PHYSICAL JOURNAL C Volume: 73 Issue: 12 Article Number: UNSP 2677 Published: DEC 21 2013

28. [Search for supersymmetry in pp collisions at root s=7 TeV in events with a single lepton, jets, and missing transverse momentum](#) Times Cited: 13  
By: Chatrchyan, S.; Khachatryan, V.; Sirunyan, A. M.; et al.  
Group Author(s): CMS Collaboration  
EUROPEAN PHYSICAL JOURNAL C Volume: 73 Issue: 5 Article Number: UNSP 2404 Published: MAY 2013
29. [Description and performance of track and primary-vertex reconstruction with the CMS tracker](#) Times Cited: 204  
By: Chatrchyan, S.; Khachatryan, V.; Sirunyan, A. M.; et al.  
Group Author(s): CMS Collaboration  
JOURNAL OF INSTRUMENTATION Volume: 9 Article Number: P10009 Published: OCT 2014
30. [Identification of b-quark jets with the CMS experiment](#) Times Cited: 369  
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

Showing 30 of 65 [View All in Cited References page](#)

Clarivate

Accelerating innovation

© 2019 Clarivate [Copyright notice](#) [Terms of use](#) [Privacy statement](#) [Cookie policy](#)

[Sign up for the Web of Science newsletter](#) [Follow us](#)

