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Search for new physics in events with a leptonically decaying Z boson and a large transverse momentum imbalance in proton-proton collisions at root s=13 TeV

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Abstract

A search for new physics in events with a Z boson produced in association with large missing transverse momentum at the LHC is presented. The search is based on the 2016 data sample of proton-proton collisions recorded with the CMS experiment at root s = 13 TeV, corresponding to an integrated luminosity of 35.9 fb⁻¹. The results of this search are interpreted in terms of a simplified model of dark matter production via spin-0 or spin-1 mediators, a scenario with a standard-model-like Higgs boson produced in association with the Z boson and decaying invisibly, a model of unparticle production, and a model with large extra spatial dimensions. No significant deviations from the background expectations are found, and limits are set on relevant model parameters, significantly extending the results previously achieved in this channel.

Keywords

KeyWords Plus: DARK-MATTER PRODUCTION; INVISIBLE HIGGS; NNLO QCD; LHC; SIMULATION; COLLIDERS; LIGHT; PLUS

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- Search for dark matter at root $s=13$ TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector** Times Cited: 29

By: Aaboud, M.; Aad, G.; Abbott, B.; et al.
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 EUROPEAN PHYSICAL JOURNAL C Volume: 77 Issue: 6 Article Number: 393 Published: JUN 14 2017
- 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: 113

By: Aaboud, M.; Aad, G.; Abbott, B.; et al.
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 PHYSICAL REVIEW D Volume: 94 Issue: 3 Article Number: 032005 Published: AUG 22 2016
- Measurement of the Inelastic Proton-Proton Cross Section at root $s=13$ TeV with the ATLAS Detector at the LHC** Times Cited: 52

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
- Constraints on new phenomena via Higgs boson couplings and invisible decays with the ATLAS detector** Times Cited: 106

By: Aad, G.; Abbott, B.; Abdallah, J.; et al.
 Group Author(s): ATLAS Collaboration
 JOURNAL OF HIGH ENERGY PHYSICS Issue: 11 Article Number: 206 Published: NOV 30 2015
- Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC** Times Cited: 5,196

By: Aad, G.; Abajyan, T.; Abbott, B.; et al.
 Group Author(s): ATLAS Collaboration
 PHYSICS LETTERS B Volume: 716 Issue: 1 Pages: 1-29 Published: SEP 17 2012
- Search for annihilating dark matter in the Sun with 3 years of IceCube data** Times Cited: 49

By: Aartsen, M. G.; Ackermann, M.; Adams, J.; et al.
 Group Author(s): IceCube Collaboration
 EUROPEAN PHYSICAL JOURNAL C Volume: 77 Issue: 3 Article Number: 146 Published: MAR 8 2017
- Improved limits on dark matter annihilation in the Sun with the 79-string IceCube detector and implications for supersymmetry** Times Cited: 58

By: Aartsen, M. G.; Abraham, K.; Ackermann, M.; et al.
 Group Author(s): IceCube Collaboration
 JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS Issue: 4 Article Number: 022 Published: APR 2016
- Title: [not available] Times Cited: 14

By: Abercrombie, D.
arXiv:1507.00966 Published: 2015
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9. **[GEANT4-a simulation toolkit](#)** Times Cited: **10,213**
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. **[Results from a Search for Dark Matter in the Complete LUX Exposure](#)** Times Cited: **529**
By: Akerib, D. S.; Alsum, S.; Araujo, H. M.; et al.
Group Author(s): LUX Collaboration
PHYSICAL REVIEW LETTERS Volume: 118 Issue: 2 Article Number: 021303 Published: JAN 11 2017

11. **[NLO vector-boson production matched with shower in POWHEG](#)** Times Cited: **22**
By: Alioli, S.; Nason, P.; Oleari, C.; et al.
JHEP-Journal of High Energy Physics Volume: 2008 Issue: 07 Pages: 060 (34 pp.) Published: July 2008

12. **[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

13. **[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

14. **[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

15. **[Dark Matter Search Results from the PICO-60C\(3\)F\(8\) Bubble Chamber](#)** Times Cited: **78**
By: Amole, C.; Ardid, M.; Arnquist, I. J.; et al.
Group Author(s): PICO Collaboration
PHYSICAL REVIEW LETTERS Volume: 118 Issue: 25 Article Number: 251301 Published: JUN 23 2017

16. **[Results on light dark matter particles with a low-threshold CRESST-II detector](#)** Times Cited: **137**
By: Angloher, G.; Bento, A.; Bucci, C.; et al.
EUROPEAN PHYSICAL JOURNAL C Volume: 76 Issue: 1 Article Number: 25 Published: JAN 20 2016

17. **[Phenomenology, astrophysics, and cosmology of theories with submillimeter dimensions and TeV scale quantum gravity](#)** Times Cited: **1,895**
By: Arkani-Hamed, N; Dimopoulos, S; Dvali, G
PHYSICAL REVIEW D Volume: 59 Issue: 8 Article Number: 086004 Published: APR 15 1999

18. **[The hierarchy problem and new dimensions at a millimeter](#)** Times Cited: **4,713**
By: Arkani-Hamed, N; Dimopoulos, S; Dvali, G
PHYSICS LETTERS B Volume: 429 Issue: 3-4 Pages: 263-272 Published: JUN 18 1998

19. **[Real emission and virtual exchange of gravitons and unparticles in PYTHIA8](#)** Times Cited: **10**
By: Ask, S.; Akin, I. V.; Benucci, L.; et al.
COMPUTER PHYSICS COMMUNICATIONS Volume: 181 Issue: 9 Pages: 1593-1604 Published: SEP 2010

20. **[Simulation of Z plus graviton/unparticle production at the LHC](#)** Times Cited: **12**
By: Ask, Stefan
EUROPEAN PHYSICAL JOURNAL C Volume: 60 Issue: 3 Pages: 509-516 Published: APR 2009

21. **[LHC Higgs Combination Group, Procedure for the LHC Higgs boson search combination in Summer 2011](#)** Times Cited: **6**
Group Author(s): ATLAS and CMS collaborations
ATL-PHYS-PUB2011-11 Published: 2011

22. **Measurement of detector-corrected observables sensitive to the anomalous production of events with jets and large missing transverse momentum in pp collisions at $s = 13\text{TeV}$ using the ATLAS detector** Times Cited: 1
Group Author(s): ATLAS Collaboration
arXiv: 1707. 03263 Published: 2017
submitted to EPJC
23. **Higher-order QCD predictions for dark matter production at the LHC in simplified models with s-channel mediators** Times Cited: 42
By: Backovic, Mihailo; Kraemer, Michael; Maltoni, Fabio; et al.
EUROPEAN PHYSICAL JOURNAL C Volume: 75 Issue: 10 Article Number: 482 Published: OCT 7 2015
24. **Higgs portal vector dark matter: revisited** Times Cited: 55
By: Baek, Seungwon; Ko, P.; Park, Wan-Il; et al.
JOURNAL OF HIGH ENERGY PHYSICS Issue: 5 Article Number: 036 Published: MAY 2013
25. **Massive gauge boson pair production at the LHC: A next-to-leading order story** Times Cited: 56
By: Baglio, Julien; Le Duc Ninh; Weber, Marcus M.
PHYSICAL REVIEW D Volume: 88 Issue: 11 Article Number: 113005 Published: DEC 5 2013
26. **Measuring the invisible Higgs width at the 7 and 8 TeV LHC** Times Cited: 31
By: Bai, Yang; Draper, Patrick; Shelton, Jessie
JOURNAL OF HIGH ENERGY PHYSICS Issue: 7 Article Number: 192 Published: JUL 2012
27. **The Tevatron at the frontier of dark matter direct detection** Times Cited: 202
By: Bai, Yang; Fox, Patrick J.; Harnik, Roni
JOURNAL OF HIGH ENERGY PHYSICS Issue: 12 Article Number: 048 Published: DEC 2010
28. **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
29. **ON THE PHASE-STRUCTURE OF VECTOR-LIKE GAUGE-THEORIES WITH MASSLESS FERMIONS** Times Cited: 684
By: BANKS, T; ZAKS, A
NUCLEAR PHYSICS B Volume: 196 Issue: 2 Pages: 189-204 Published: 1982
30. **The invisible Higgs decay width in the ADD model at the LHC** Times Cited: 3
By: Battaglia, M.; Dominici, D.; Gunion, J.F.; et al.
arXiv:hep-ph/0402062 Published: 2004
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