

Physics Publications with Major Personal Contributions

Oliver Gutsche

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A.M. Sirunyan et al., **Search for new phenomena in final states with two opposite-charge, same-flavor leptons, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV**, *JHEP*. 03 (2018) 076, doi:[10.1007/s13130-018-7845-2](https://doi.org/10.1007/s13130-018-7845-2), arXiv:[1709.08908](https://arxiv.org/abs/1709.08908) [hep-ex]

A.M. Sirunyan et al., **Search for standard model production of four top quarks with same-sign and multilepton final states in proton–proton collisions at $\sqrt{s} = 13$ TeV**, *Eur. Phys. J. C* 78 (2018) 140, doi:[10.1140/epjc/s10052-018-5607-5](https://doi.org/10.1140/epjc/s10052-018-5607-5), arXiv:[1710.10614](https://arxiv.org/abs/1710.10614) [hep-ex]

A.M. Sirunyan et al., **Search for dark matter produced in association with a Higgs boson decaying to a pair of bottom quarks in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *Submitted to: Eur. Phys. J.* (2018), arXiv:[1811.06562](https://arxiv.org/abs/1811.06562) [hep-ex]

A.M. Sirunyan et al., **Search for dark matter in events with energetic, hadronically decaying top quarks and missing transverse momentum at $\sqrt{s} = 13$ TeV**, *JHEP*. 06 (2018) 027, doi:[10.1007/JHEP06\(2018\)027](https://doi.org/10.1007/JHEP06(2018)027), arXiv:[1801.08427](https://arxiv.org/abs/1801.08427) [hep-ex]

A.M. Sirunyan et al., **Combined search for electroweak production of charginos and neutralinos in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP*. 03 (2018) 160, doi:[10.1007/JHEP03\(2018\)160](https://doi.org/10.1007/JHEP03(2018)160), arXiv:[1801.03957](https://arxiv.org/abs/1801.03957) [hep-ex]

O. Gutsche, **Dark Matter and Super Symmetry: Exploring and Explaining the Universe with Simulations at the LHC**, in: *Proceedings, Winter Simulation Conference: Simulating Complex Service Systems (WSC 16): Washington, D.C., United States, December 11-14, 2016*, 2017: pp. 4–13, doi:[10.1109/WSC.2016.7822075](https://doi.org/10.1109/WSC.2016.7822075)

A.M. Sirunyan et al., **Searches for pair production of third-generation squarks in $\sqrt{s} = 13$ TeV pp collisions**, *Eur. Phys. J. C* 77 (2017) 327, doi:[10.1140/epjc/s10052-017-4853-2](https://doi.org/10.1140/epjc/s10052-017-4853-2), arXiv:[1612.03877](https://arxiv.org/abs/1612.03877) [hep-ex]

A.M. Sirunyan et al., **Search for new phenomena with the M_{T2} variable in the all-hadronic final state produced in proton–proton collisions at $\sqrt{s} = 13$ TeV**, *Eur. Phys. J. C* 77 (2017) 710, doi:[10.1140/epjc/s10052-017-5267-x](https://doi.org/10.1140/epjc/s10052-017-5267-x), arXiv:[1705.04650](https://arxiv.org/abs/1705.04650) [hep-ex]

A.M. Sirunyan et al., **Search for physics beyond the standard model in events with two leptons of same sign, missing transverse momentum, and jets in proton–proton collisions at $\sqrt{s} = 13$ TeV**, *Eur. Phys. J. C* 77 (2017) 578, doi:[10.1140/epjc/s10052-017-5079-z](https://doi.org/10.1140/epjc/s10052-017-5079-z), arXiv:[1704.07323](https://arxiv.org/abs/1704.07323) [hep-ex]

A.M. Sirunyan et al., **Search for top squark pair production in pp collisions at $\sqrt{s} = 13$ TeV using single lepton events**, *JHEP*. 10 (2017) 019, doi:[10.1007/JHEP10\(2017\)019](https://doi.org/10.1007/JHEP10(2017)019), arXiv:[1706.04402](https://arxiv.org/abs/1706.04402) [hep-ex]

A.M. Sirunyan et al., **Search for electroweak production of charginos and neutralinos in WH events in proton-proton collisions at $\sqrt{s} = 13$ TeV**, *JHEP*. 11 (2017) 029, doi:[10.1007/JHEP11\(2017\)029](https://doi.org/10.1007/JHEP11(2017)029), arXiv:[1706.09933](https://arxiv.org/abs/1706.09933) [hep-ex]

V. Khachatryan et al., **Measurement of the W^+W^- cross section in pp collisions at $\sqrt{s} = 8$ TeV and limits on anomalous gauge couplings**, *Eur. Phys. J. C* 76 (2016) 401, doi:[10.1140/epjc/s10052-016-4219-1](https://doi.org/10.1140/epjc/s10052-016-4219-1), arXiv:[1507.03268](https://arxiv.org/abs/1507.03268) [hep-ex]

V. Khachatryan et al., **Search for new physics in final states with two opposite-sign, same-flavor leptons, jets, and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV**, *JHEP*. 12 (2016) 013, doi:[10.1007/JHEP12\(2016\)013](https://doi.org/10.1007/JHEP12(2016)013), arXiv:[1607.00915](https://arxiv.org/abs/1607.00915) [hep-ex]

V. Khachatryan et al., **Search for new physics in same-sign dilepton events in proton–proton collisions at $\sqrt{s} = 13$ TeV**, *Eur. Phys. J. C* 76 (2016) 439, doi:[10.1140/epjc/s10052-016-4261-z](https://doi.org/10.1140/epjc/s10052-016-4261-z), arXiv:[1605.03171](https://arxiv.org/abs/1605.03171) [hep-ex]

V. Khachatryan et al., **Search for new physics with the M_{T2} variable in all-jets final states produced in pp collisions at $\sqrt{s} = 13$ TeV**, *JHEP*. 10 (2016) 006, doi:[10.1007/JHEP10\(2016\)006](https://doi.org/10.1007/JHEP10(2016)006), arXiv:[1603.04053](https://arxiv.org/abs/1603.04053) [hep-ex]

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- V. Khachatryan et al., **Measurements of $t\bar{t}$ charge asymmetry using dilepton final states in pp collisions at $\sqrt{s} = 8$ TeV**, *Phys. Lett. B* 760 (2016) 365–386, doi:[10.1016/j.physletb.2016.07.006](https://doi.org/10.1016/j.physletb.2016.07.006), arXiv:[1603.06221](https://arxiv.org/abs/1603.06221) [hep-ex]
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 - Full List of Publications from all Collaborations and Experiments can be found [here](#).