Physics Publications with Major Personal Contributions

Oliver Gutsche

July 28, 2025

A. Tumasyan et al., A portrait of the Higgs boson by the CMS experiment ten years after the discovery., *Nature*. 607 (2022) 60–68, doi:10.1038/s41586-022-04892-x, arXiv:2207.00043 [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 protonproton collisions at $\sqrt{s} = 13 TeV$, Eur. Phys. J. C. 79 (2019) 280, doi:10.1140/epjc/s10052-019-6730-7, arXiv: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, arXiv:1801.08427 [hep-ex]

V. Khachatryan et al., Measurements of t t-bar spin correlations and top quark polarization using dilepton final states in pp collisions at sqrt(s) = 8 TeV, Phys. Rev. D. 93 (2016) 052007, doi:10.1103/PhysRevD.93.052007, arXiv:1601.01107 [hep-ex]

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, arXiv:1603.06221 [hep-ex]

- S. Chatrchyan et al., Measurements of $t\bar{t}$ Spin Correlations and Top-Quark Polarization Using Dilepton Final States in pp Collisions at $\sqrt{s}=7$ TeV, Phys. Rev. Lett. 112 (2014) 182001, doi:10.1103/PhysRevLett.112.182001, arXiv:1311.3924 [hep-ex]
- S. Chatrchyan et al., Measurements of the $t\bar{t}$ Charge Asymmetry Using the Dilepton Decay Channel in pp Collisions at $\sqrt{s} = 7$ TeV, JHEP. 04 (2014) 191, doi:10.1007/JHEP04(2014)191, arXiv:1402.3803 [hep-ex]
- S. Chatrchyan et al., Observation of a New Boson at a Mass of 125 GeV with the CMS Experiment at the LHC, *Phys. Lett. B.* 716 (2012) 30–61, doi:10.1016/j.physletb.2012.08.021, arXiv:1207.7235 [hep-ex]
 - Full List of Physics Publications with Major Personal Contributions can be found here.
 - Full List of Computing Publications with Major Personal Contributions can be found here.
 - Full List of Publications from all Collaborations and Experiments can be found here.

July 28, 2025