

Philipp Gadow

Publication list

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Selected peer-reviewed publications released by the ATLAS collaboration

Over 440 published journal publications as part of the ATLAS Collaboration.

Every publication of the ATLAS collaboration relies on the results of thousands of individual researchers and technicians. For this reason, each document made public by the ATLAS collaboration includes all members of the collaboration, in alphabetical order. This section includes only publications with direct personal contributions.

- Dec 2023 Search for heavy resonances in four-top-quark final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
accepted by JHEP, arXiv:2304.01678, 1 citation (14.12.2023)
co-lead of analysis, statistical analysis, distributed computing, signal samples, student supervision
- Nov 2023 Search for single vector-like B quark production and decay via $B \rightarrow bH(b\bar{b})$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
JHEP 11 (2023) 168, arXiv:2308.02595, 2 citations (14.12.2023)
study and simulation of signal process
- Jul 2023 ATLAS flavour-tagging algorithms for the LHC Run 2 pp collision dataset
Eur.Phys.J.C 83 (2023) 7, 681, arXiv:2211.16345, 85 citations (14.12.2023)
co-lead of paper, performance studies, plots
- Nov 2021 Search for dark matter produced in association with a Standard Model Higgs boson decaying into b -quarks using the full Run 2 dataset from the ATLAS detector
JHEP 11 (2021) 209, arXiv:2108.13391, 52 citations (14.12.2023)
analysis software maintenance, distributed computing, optimisation studies
- Mar 2021 Search for dark matter produced in association with a dark Higgs boson decaying to $W^{\pm}W^{\mp}$ or ZZ in fully hadronic final states using pp collisions at $\sqrt{s} = 13$ TeV recorded with the ATLAS detector
Phys. Rev. Lett. 126, 121802, arXiv:2010.06548, 20 citations (14.12.2023)
central analyser, analysis strategy, analysis software design and maintenance, distributed computing, signal samples, statistical analysis
- Jun 2019 Combination of Searches for Invisible Higgs Boson Decays with the ATLAS Experiment [minor contribution]
Phys. Rev. Lett. 122, 231801, arXiv:1904.05105, 192 citations (14.12.2023)
contributed to studies regarding statistical independence of results
- Mar 2019 Constraints on mediator-based dark matter and scalar dark energy models using $\sqrt{s} = 13$ TeV pp collision data collected by the ATLAS detector
JHEP 05 (2019) 142, arXiv:1903.01400, 158 citations (14.12.2023)
liaison for incorporating "JHEP 10 (2018) 180" results, reinterpretation for dark matter simplified model with extended Higgs sector

- Oct 2018 Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
JHEP 10 (2018) 180, arXiv:1807.11471, 121 citations (14.12.2023)
central analyser, analysis software maintenance, distributed computing, multijet background estimate, statistical analysis

Selected public notes released by the ATLAS collaboration

The ATLAS collaboration publishes preliminary results for conferences and limited-scope performance studies as notes. These documents undergo rigorous internal peer-review by the collaboration. This section includes only publications with direct personal contributions.

- Aug 2019 RECAST framework reinterpretation of an ATLAS Dark Matter Search constraining a model of a dark Higgs boson decaying to two b -quarks
ATLAS-PUB-2019-032 (non-peer-reviewed ATLAS publication)
co-editor, co-organisation of effort, signal samples, RECAST workflow setup
- Jul 2018 Search for Dark Matter Produced in Association with a Higgs Boson Decaying to $b\bar{b}$ at $\sqrt{s} = 13$ TeV with the ATLAS Detector using 79.8 fb^{-1} of pp collisions
ATLAS-CONF-2018-039 (non-peer-reviewed ATLAS publication)
central analyser, analysis software maintenance, commissioning of object-based missing transverse momentum significance and multijet estimate, distributed computing, statistical analysis

Proceedings

- Dez 2018 Search for Dark Matter in association with a hadronically decaying Z' vector boson with the ATLAS detector in pp collisions at 13 TeV
PoS LHCP2018 (2018) 016 (Proceedings)
- Nov 2015 Performance of a First-Level Muon Trigger with High Momentum Resolution Based on the ATLAS MDT Chambers for HL-LHC
NSS/MIC 2015 (Proceedings), arXiv:1511.09210

Other peer-reviewed publications

- Sep 2021 Software Training in HEP [minor contribution]
Comput.Softw.Big Sci. 5 (2021) 1, 22, arXiv:2103.00659, 2 citations (14.12.2023)
served as mentor in HSF software trainings