

Philipp Gadow

Curriculum Vitae

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Employment and education

- 2020+ **Postdoctoral Research Fellow**, *Deutsches Elektronensynchrotron DESY*, Hamburg, Germany.
- 2016–2020 **PhD Physics**, *Max-Planck-Institut für Physik*, Munich, Germany.
Advisor: PD Dr. Oliver Kortner
Thesis: Search for Dark Matter Produced in Association with Hadronically Decaying Bosons at $\sqrt{s} = 13$ TeV with the ATLAS Detector at the LHC
- 2013–2016 **M.Sc. Particle Physics**, *Technical University of Munich*, Munich, Germany.
Thesis: Development of a Concept for the Muon Trigger of the ATLAS Detector at the HL-LHC
- Winter 2013 **Erasmus SMS**, *University of Edinburgh*, Edinburgh, United Kingdom.
- 2010–2013 **B.Sc. Physics**, *Technical University of Munich*, Munich, Germany.
Thesis: dE/dx studies with pion and electron tracks of the ALICE GEM IROC prototype

Appointments

- 2021+ **Flavour tagging algorithms sub-group convener**, *ATLAS experiment*.
Co-coordination (2 conveners) of a group consisting of 40 physicists working on machine learning algorithms for the identification of heavy-flavour jets at the ATLAS experiment

Selected publications

- Sep 2021 Search for heavy resonances in four-top-quark final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector
ATLAS-CONF-2021-048 (non-peer-reviewed ATLAS publication)
- 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](https://arxiv.org/abs/2010.06548)
- 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)
- Jun 2019 Combination of Searches for Invisible Higgs Boson Decays with the ATLAS Experiment [minor contribution]
Phys. Rev. Lett. **122**, 231801, [arXiv:1904.05105](https://arxiv.org/abs/1904.05105)
- 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 **1905** (2019) 142, [arXiv:1903.01400](https://arxiv.org/abs/1903.01400)

- 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
- 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)
 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

Talks and posters

Invited talks

- Feb 2020 **Dark matter searches with the ATLAS detector at the LHC**, *Cavendish Laboratory HEP Seminar*, Cambridge, United Kingdom, seminar talk.

International conferences

- Jul 2019 **ATLAS Highlights on Dark Matter Searches in Exotic Models**, *XIII International Workshop on Interconnections between Particle Physics and Cosmology*, Cartagena, Columbia, conference talk.
- Oct 2018 **Search for dark matter produced in association with a Higgs boson decaying to $b\bar{b}$** , *Puzzle of Dark Matter Workshop*, DESY Hamburg, Germany, Young Scientist Forum talk.
- Jun 2018 **Search for Dark Matter in association with a hadronically decaying Z' vector boson with the ATLAS detector in pp collisions at 13 TeV**, *Sixth Annual Conference on Large Hadron Collider Physics*, Bologna, Italien, poster.

Schools

- Jul 2019 **Fifth Machine Learning in High Energy Physics Summer School 2019**, *DESY*, Hamburg, Germany, 10 days.
- Sep 2017 **49. Herbstschule für Hochenergiephysik 2019**, *University of Siegen*, Maria Laach, Germany, 10 days.

Awards

- 2010-2016 **Full scholarship, German Academic Scholarship Foundation.**
- 2014 **Goldene Kreide teaching award for student tutorial sessions.**