

# List of publications (ordered by year)

## In preparation / review

C. Baldenegro, A. Bellora, M. Pitt and C. Royon, *Inclusive diffractive production of top quarks with proton tagging at the LHC, target journal JHEP* (expected: December 2023)

M. Pitt, *Constraining models of hadronic showers using proton-Oxygen collisions at the LHC with proton/neutron tagging*, *PoS TAUP2023* (2023) 140

## 2023

M. Pitt, *Diffractive and photon-induced production of top quark*, *Universe* **9** (2023)

M. Pitt, *Reducing model uncertainties using proton-oxygen collisions with proton/neutron tagging at the LHC*, *PoS ICRC2023* (2023) 426

CMS and TOTEM Collaborations, *A search for new physics in central exclusive production using the missing mass technique with the CMS detector and the CMS-TOTEM precision proton spectrometer*, *European Physical Journal C* **83** (Sept., 2023) 827, [[2303.04596](#)]

M. Pitt, *Physics at the HL-LHC with Proton Tagging*, *Acta Phys. Polon. Supp.* **16** (2023) 7–A12

CMS and TOTEM Collaborations, *Search for central exclusive production of top quark pairs in proton-proton collisions at  $\sqrt{s} = 13$  TeV with tagged protons*, [2310.11231](#)

CMS and TOTEM Collaborations, *Proton reconstruction with the CMS-TOTEM Precision Proton Spectrometer*, *JINST* **18** (2023) P09009, [[2210.05854](#)]

## 2022

J. Kuśnierz, V. E. Padulano, M. Malawski, K. Burkiewicz, E. T. Saavedra, P. Alonso-Jordá et al., *A Serverless Engine for High Energy Physics Distributed Analysis*, in *22nd IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing*, 5, 2022. [2206.00942](#). DOI

C. Baldenegro, A. Bellora, S. Fichet, G. von Gersdorff, M. Pitt and C. Royon, *Searching for anomalous top quark interactions with proton tagging and timing detectors at the LHC*, *JHEP* **08** (2022) 021, [[2205.01173](#)]

M. Hentschinski et al., *White Paper on Forward Physics, BFKL, Saturation Physics and Diffraction*, in *2022 Snowmass Summer Study*, March, 2022. [2203.08129](#)

## 2021

A. Aggarwal et al., *Results of the 2021 ECFA Early-Career Researcher Survey on Training in Instrumentation*, [2107.05739](#)

F. A. Di Bello, S. Ganguly, E. Gross, M. Kado, M. Pitt, J. Shlomi et al., *Towards a Computer Vision Particle Flow*, *Eur. Phys. J. C* **81** (2021) 107, [[2003.08863](#)]

## 2020

CMS collaboration, *The CMS Precision Proton Spectrometer at the HL-LHC – Expression of Interest*, CERN-CMS-NOTE-2020-008, March, 2021. [2103.02752](#)

D. Turgeman, M. Pitt and E. Duchovni, *The Two Hemispheres Method for Searches of Multijet BSM Signals*, [PoS LHCP2020 \(2021\) 254](#)

D. Turgeman, M. Pitt, I. Roth and E. Duchovni, *On the Modelling of Energetic Multi-jet QCD Events*, [Eur. Phys. J. C \*\*80\*\* \(2020\) 1187](#), [[1912.01254](#)]

## 2019

ATLAS Collaboration, *Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run 2 data collected in 2015 and 2016*, [Eur. Phys. J. C \*\*79\*\* \(2019\) 205](#), [[1810.05087](#)]

## 2018

ATLAS collaboration, M. Aaboud et al., *Search for charged Higgs bosons decaying via  $H^\pm \rightarrow \tau^\pm \nu_\tau$  in the  $\tau$ +jets and  $\tau$ +lepton final states with  $36\text{ fb}^{-1}$  of  $pp$  collision data recorded at  $\sqrt{s} = 13\text{ TeV}$  with the ATLAS experiment*, [JHEP \*\*09\*\* \(2018\) 139](#), [[1807.07915](#)]

M. Pitt, P. M. M. Correia, S. Bressler, A. E. C. Coimbra, D. Shaked Renous, C. D. R. Azevedo et al., *Measurements of charging-up processes in THGEM-based particle detectors*, [JINST \*\*13\*\* \(2018\) P03009](#), [[1801.00533](#)]

P. M. M. Correia, M. Pitt, C. D. R. Azevedo, A. Breskin, S. Bressler, C. A. B. Oliveira et al., *Simulation of gain stability of THGEM gas-avalanche particle detectors*, [JINST \*\*13\*\* \(2018\) P01015](#), [[1711.02073](#)]

## 2016

ATLAS collaboration, M. Aaboud et al., *Measurement of the photon identification efficiencies with the ATLAS detector using LHC Run-1 data*, [Eur. Phys. J. C \*\*76\*\* \(2016\) 666](#), [[1606.01813](#)]

ATLAS collaboration, M. Aaboud et al., *Search for charged Higgs bosons produced in association with a top quark and decaying via  $H^\pm \rightarrow \tau \nu$  using  $pp$  collision data recorded at  $\sqrt{s} = 13\text{ TeV}$  by the ATLAS detector*, [Phys. Lett. B \*\*759\*\* \(2016\) 555–574](#), [[1603.09203](#)]

S. Bressler et al., *First in-beam studies of a Resistive-Plate WELL gaseous multiplier*, [JINST \*\*11\*\* \(2016\) P01005](#), [[1510.03116](#)]

## 2015

ATLAS collaboration, G. Aad et al., *Search for the associated production of the Higgs boson with a top quark pair in multilepton final states with the ATLAS detector*, [Phys. Lett. B \*\*749\*\* \(2015\) 519–541](#), [[1506.05988](#)]

ATLAS collaboration, G. Aad et al., *Constraints on the off-shell Higgs boson signal strength in the high-mass ZZ and WW final states with the ATLAS detector*, [Eur. Phys. J. C \*\*75\*\* \(2015\) 335](#), [[1503.01060](#)]

ATLAS collaboration, G. Aad et al., *Evidence for the Higgs-boson Yukawa coupling to tau leptons with the ATLAS detector*, [JHEP \*\*04\*\* \(2015\) 117](#), [[1501.04943](#)]

## 2014

S. Bressler, L. Moleri, L. Arazi, E. Erdal, A. Rubin, M. Pitt et al., *A concept for laboratory studies of radiation detectors over a broad dynamic-range: instabilities evaluation in THGEM-structures*, *JINST* **9** (2014) P03005, [[1311.0340](#)]

L. Arazi, M. Pitt, S. Bressler, L. Moleri, A. Rubin and A. Breskin, *Laboratory studies of THGEM-based WELL structures with resistive anode*, *JINST* **9** (2014) P04011, [[1310.6183](#)]

## 2013

S. Bressler, L. Arazi, L. Moleri, M. Pitt, A. Rubin and A. Breskin, *Recent advances with THGEM detectors*, *JINST* **8** (2013) C12012, [[1310.3912](#)]

A. Rubin, L. Arazi, S. Bressler, L. Moleri, M. Pitt and A. Breskin, *First studies with the Resistive-Plate WELL gaseous multiplier*, *JINST* **8** (2013) P11004, [[1308.6152](#)]

A. E. C. Coimbra, A. S. Conceição, J. A. Mir, A. Rubin, M. Pitt, A. Breskin et al., *First results with THGEM followed by submillimetric multiplying gap*, *JINST* **8** (2013) P06004

S. Bressler et al., *Beam studies of novel THGEM-based potential sampling elements for Digital Hadron Calorimetry*, *JINST* **8** (2013) P07017, [[1305.4657](#)]

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## 2012

L. Arazi et al., *THGEM-based detectors for sampling elements in DHCAL: laboratory and beam evaluation*, *JINST* **7** (2012) C05011, [[1112.1915](#)]

## 2011

ATLAS collaboration, G. Aad et al., *Search for neutral MSSM Higgs bosons decaying to  $\tau^+\tau^-$  pairs in proton-proton collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector*, *Phys. Lett. B* **705** (2011) 174–192, [[1107.5003](#)]