1 Own Contributions

Oliver Matonoha

These are the publications with the author's contribution, in chronological order:

- J. Adolfsson *et al.* The upgrade of the ALICE TPC with GEMs and continuous readout. JINST **16** (2021) no.03, P03022, [arXiv:2012.09518 [physics.ins-det]].
  Summary paper of the TPC upgrade by the ALICE TPC collaboration, of which I am a member, as part of my qualification task related to disassembling of the front-end readout system and the upgraded TPC commissioning.

- O. Matonoha. Light-flavour hadron production as a function of the underlying event. *ARISF* 2021, p. 277. Available at *https://cds.cern.ch/record/2758268*.
  Proceedings of the 55th Recontres de Moriond on QCD conference.

- J. Adolfsson, *et al.* QCD challenges from pp to A–A collisions, Eur. Phys. J. A **56** (2020) no.11, 288 [arXiv:2003.10997 [hep-ph]]
  Summary paper to the 3rd International Workshop on QCD Challenges from pp to A–A, 2019, presenting main ideas discussed during the workshop, where I actively participated and helped review the final document.

- ALICE Collaboration. Production of pions, kaons and protons as a function of the transverse event activity in pp collisions at $\sqrt{s} = 13$ TeV. Submitted to JHEP, preprint [arXiv:2301.10120 [nucl-ex]].
  The first publication of my collaborators and I on the underlying event measurements. Focuses mostly on the results of my colleague O. Vazquez.

- ALICE Collaboration. Light-flavor particle production in high-multiplicity pp collisions at $\sqrt{s} = 13$ as a function of transverse spherocity. Publication currently undergoing the internal review process of ALICE.
  Publication of my collaborators and I on the spherocity measurements, including results presented in this dissertation.

The neutral strange hadron measurements as a function of underlying event activity presented in this thesis have not been published yet but are planned for publication in the near future.