

ALICE and HEPData

- ❑ As of November 2017
- ❑ **All papers**, once submitted to arXiv, have their numerical results also **submitted to HEPData**
- ❑ Preparation of tar file with YAML submission as a **pre-requisite** to submission of the paper
(use of txt format still internally allowed, very few cases)
- ❑ Thanks to the **versioning option**, for an increasing number of papers, the HEPData record is made available “immediately” after arXiv submission
- ❑ A second version is then submitted if the review process by the journal brings to changes or additions in the numerical values (it seldom happens)

Exceptions

□ In some exceptional cases **no HEPData record** is produced

1) Papers which have as a result **one (or a few) numerical values** already reported in the paper (example, arXiv:1710.07531)

Production of ${}^4\text{He}$ and ${}^4\overline{\text{He}}$ in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV at the LHC

ALICE Collaboration

(Submitted on 20 Oct 2017)

Results on the production of ${}^4\text{He}$ and ${}^4\overline{\text{He}}$ nuclei in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV in the rapidity range $|y| < 1$, using the ALICE detector, are presented in this paper. The rapidity densities corresponding to 0-10% central events are found to be $dN/dy_{{}^4\text{He}} = (0.8 \pm 0.4 \text{ (stat)} \pm 0.3 \text{ (syst)}) \times 10^{-6}$ and $dN/dy_{{}^4\overline{\text{He}}} = (1.1 \pm 0.4 \text{ (stat)} \pm 0.2 \text{ (syst)}) \times 10^{-6}$, respectively. This is in agreement with the statistical thermal model expectation assuming the same chemical freeze-out temperature ($T_{\text{chem}} = 156$ MeV) as for light hadrons. The measured ratio of ${}^4\overline{\text{He}}/{}^4\text{He}$ is $1.4 \pm 0.8 \text{ (stat)} \pm 0.5 \text{ (syst)}$.

2) Papers of a **more technical nature** (example, arXiv:1603.01392)

Particle identification in ALICE: a Bayesian approach

ALICE Collaboration

(Submitted on 3 Feb 2016 (v1), last revised 26 May 2016 (this version, v2))

We present a Bayesian approach to particle identification (PID) within the ALICE experiment. The aim is to more effectively combine the particle identification capabilities of its various detectors. After a brief explanation of the adopted methodology and formalism, the performance of the Bayesian PID approach for charged pions, kaons and protons in the central barrel of ALICE is studied. PID

□ We now submit HEPData record also for technical papers,
on request of the paper committee → recent case, arXiv:1709.02743

Public record (ALICE website)

π^0 and η meson production in proton-proton collisions at $\sqrt{s} = 8$ TeV

ALICE Collaboration

(Submitted on 29 Aug 2017)

Comments: 32 pages, 8 captioned figures, 6 tables, authors from page 27, submitted to EPJC, figures at [this http URL](#)

Subjects: **High Energy Physics - Experiment (hep-ex)**; Nuclear Experiment (nucl-ex)

Report number: CERN-EP-2017-216

Cite as: [arXiv:1708.08745 \[hep-ex\]](#)
(or [arXiv:1708.08745v1 \[hep-ex\]](#) for this version)

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π^0 and η meson production in proton-proton collisions at $\sqrt{s} = 8$ TeV

An invariant differential cross section measurement of inclusive π^0 and η meson production at mid-rapidity in pp collisions at $\sqrt{s} = 8$ TeV was carried out by the ALICE experiment at the LHC. The spectra of neutral mesons π^0 and η were measured in transverse momentum ranges of $0.3 < p_T < 35$ GeV/c and $0.5 < p_T < 35$ GeV/c, respectively. Next-to-leading order perturbative QCD calculations using fragmentation functions DSS14 for π^0 and AESSS for η overestimate the cross sections of both neutral mesons, but agree with the measured η/π^0 ratio within uncertainties. The results are also compared with PYTHIA-8.2 predictions for which the Monash-2013 tune yields the best agreement with the measured neutral meson spectra. The measurements confirm a universal behavior of the η/π^0 ratio seen for NA27, PHENIX and ALICE data for pp collisions from $\sqrt{s} = 27.5$ GeV to $\sqrt{s} = 8$ TeV within experimental uncertainties. A relation between the π^0 and η production cross sections for pp collisions at $\sqrt{s} = 8$ TeV is given by m_T scaling for $p_T > 3.5$ GeV/c. However, a deviation from this empirical scaling law is observed for transverse momenta below $p_T < 3.5$ GeV/c in the η/π^0 ratio with a significance of 6.2σ .

Submitted to: **EPJC**
HEP Data

e-Print: [arXiv:1708.08745](#) | [PDF](#) | [inSPIRE](#)
CERN-EP-2017-216

▼ Figures

Figure 1

Determination of trigger rejection factors for the used PHOS-L0 and EMC-L0/L1 triggers. The raw spectra of photon candidates for each trigger combination given in the legend are used to obtain the respective ratio of yields. The obtained distributions are then fitted with a constant in the illustrated energy ranges, yielding the quoted RF s. The uncertainties of RF determination are indicated in light colored uncertainty bands.

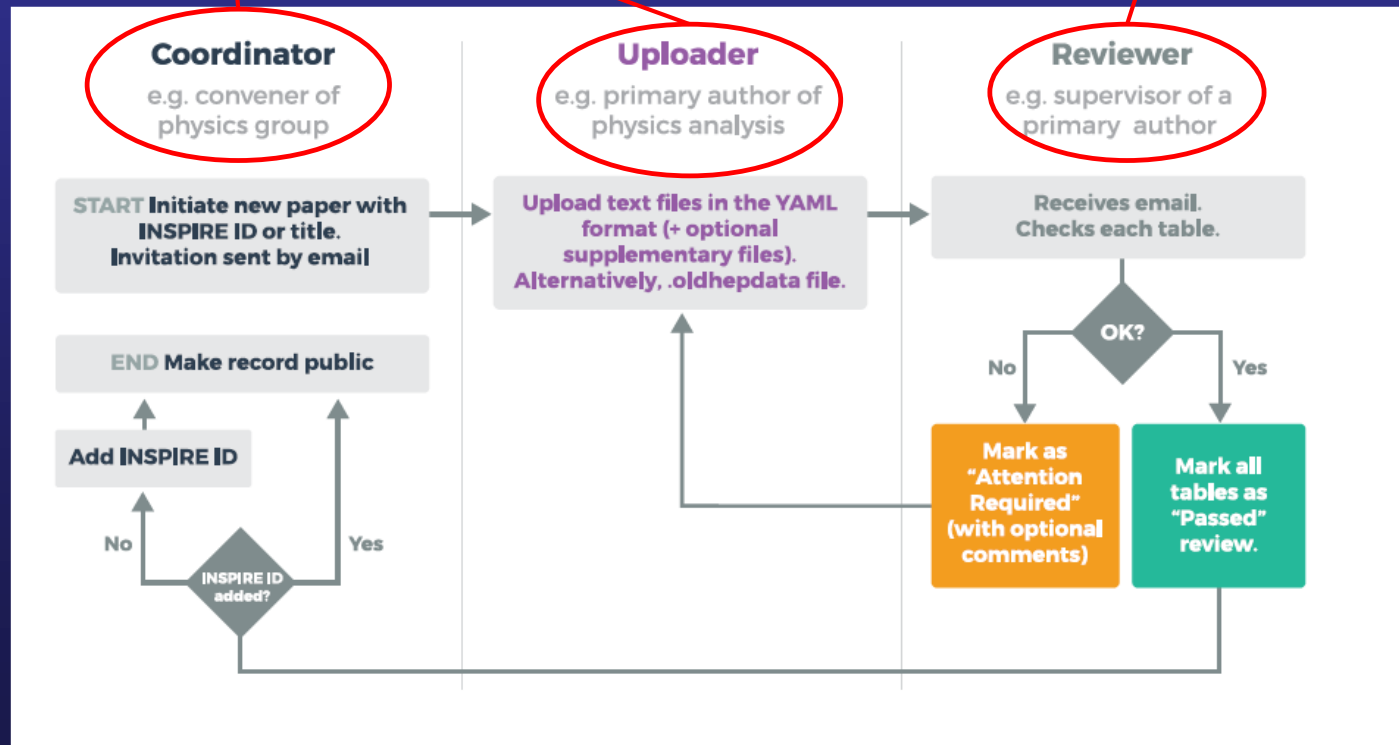
Trigger combination	Fit range (GeV)	Trigger rejection
EMC-L0/MB	$4.1 < E < 30.0$	67.0 ± 1.1
EMC-L1/EMC-L0	$12.5 < E < 50.0$	222.5 ± 4.0
PHOS-L0/MB	$6.0 < E < 24.0$	$(12.4 \pm 1.5) \times 10^3$

[png] [pdf] [eps]

New HEPData site: procedure

Single reference:
ALICE Webmaster
(alice-publications@cern.ch)

For each paper:
chair of the paper committee
(alice-paperdraft-idxxxx@cern.ch)



ALICE internal procedure

Creation of the submission record

- Create new submission
- Assign "Reviewer"
- Upload tarball previously tested by the PC chair
Numerical values double-checked by IRC
- Notify "Reviewer"

 **WEBMASTER AS
COORDINATOR**

Review and approve the HEP data file

- Mark each table as having "passed"

 **PC CHAIR AS
REVIEWER**

Finalize the submission

- Finalize submission from its dashboard

 **WEBMASTER AS
COORDINATOR**

Replace the HEP Data tarball by the submitted YAML version in the paper node

 **PC CHAIR AS
REVIEWER**