

Presentazione del dottorando Gabriele Gaetano Fronzé
Dottorato di Ricerca in Fisica - XXXI Ciclo
Università degli Studi di Torino

Dottorando: Gabriele Gaetano Fronzé

Relatore: Prof. Martino Gagliardi

Titolo della tesi: *Bottomonium production in heavy ion collisions at $\sqrt{s_{NN}} = 5 \text{ TeV}$ with ALICE and upgrade of the muon spectrometer software in preparation of the LHC RunIII*

La tesi è stata svolta in co-tutela con IMT-Atlantique (Nantes, Francia). Il relatore per l'istituzione francese è il Dr. Gines Martinez-Garcia.

Durante il triennio di dottorato il dottorando Gabriele Gaetano Fronzé ha seguito i seguenti corsi della Scuola e sostenuto i relativi esami:

- Advanced Laboratory (UniTo);
- Data Analysis Techniques (UniTo);
- Quantum Communication (UniTo);
- Pilotage d'Équipe (IMT-Atlantique).

L'attività di ricerca del dottorando Gabriele Gaetano Fronzé si è svolta nell'ambito dell'esperimento ALICE (CERN), che studia la materia nucleare ad altissime densità di energia, e la sua transizione al Quark Gluon Plasma (QGP). In particolare, il dottorando si è occupato dello studio della produzione di bottomonio in collisioni piombo-piombo al Large Hadron Collider (LHC). La misura, effettuata con dati raccolti nel 2015, ha evidenziato una soppressione delle risonanze $\Upsilon(1S)$ e $\Upsilon(2S)$ in collisioni piombo-piombo (relativamente alle collisioni protone-protone), come atteso dai modelli di *colour screening*. Il dottorando ha partecipato attivamente all'analisi dei dati (in particolare per quanto riguarda le correzioni di efficienza e la determinazione delle sezioni d'urto di riferimento protone-protone) e alla scrittura dell'articolo associato¹. Il dottorando ha inoltre contribuito allo sviluppo del software di ricostruzione dei dati per la terza fase di presa dati dell'esperimento ALICE, che comincerà nel 2021. Questa fase sarà caratterizzata da un aumento del tasso di acquisizione dati in collisioni piombo-piombo di un fattore 100 rispetto al periodo precedente. Tale aumento è dovuto da un lato a una maggiore luminosità istantanea fornita dall'acceleratore e dall'altro a un upgrade dell'elettronica di lettura e del sistema di acquisizione, che permetterà una lettura continua dei dati e una ricostruzione quasi on-line. Il dottorando ha lavorato allo sviluppo del software di ricostruzione del Muon Identifier di ALICE. In particolare ha realizzato il software per la determinazione on-line dei canali rumorosi del rivelatore e la generazione delle maschere corrispondenti. Il dottorando si è inoltre occupato dell'integrazione delle altre fasi della ricostruzione (clustering e tracking) nel framework generale di acquisizione dati, che permette la comunicazione tra i singoli processi (Data Processing Layer). Infine, il dottorando ha partecipato attivamente alle operazioni di presa dati presso ALICE, contribuendo anche allo sviluppo di tools per il monitoraggio delle performance dei

¹Numero 18. nell'Elenco delle Pubblicazioni

rivelatori di trigger muonico (Resistive Plate Chambers), di cui il gruppo ALICE-Torino è co-responsabile.

Durante la sua attività di ricerca il dottorando Gabriele Gaetano Fronzé ha mostrato buone capacità di apprendimento e di lavoro autonomo. Si è integrato rapidamente e proficuamente nel gruppo ALICE-Torino e nella comunità ALICE più in generale. Ha dimostrato ottime capacità informatiche e buona versatilità nell'affrontare attività fra loro diverse, dall'analisi dati allo sviluppo di software alle operazioni di presa dati.

Pertanto esprimo il mio apprezzamento per il lavoro svolto dal dottorando Gabriele Gaetano Fronzé durante il triennio del Dottorato di Ricerca.

Torino, 27/09/2018

Il tutore Prof. Martino Gagliardi

Firma

A handwritten signature in blue ink, appearing to read 'Martino Gagliardi', is centered on the page below the text 'Firma'.

Partecipazione a conferenze

- RPC 2016, 22-26 Feb. 2016, Gent, Belgio, "Performance of the ALICE muon trigger system in pp and Pb-Pb collisions at the LHC";
- Hard Probes 2016, 22-27 Set. 2016, Wuhan, Cina, " Υ production in p-Pb and Pb-Pb collisions with ALICE at the LHC";
- 102o Congresso Nazionale SIF 2016, 22-27 Set. 2016, Padova, Italia, "Studio della produzione del quarkonio nella regione di elevata rapidità con l'esperimento ALICE ad LHC";
- Incontri di Fisica delle Alte Energie 2017, 19-21 Apr. 2017, Trieste, Italia, "Studio della produzione del quarkonio in collisioni p-Pb e Pb-Pb con l'esperimento ALICE al LHC";
- Journée de l'École Doctorale 2017, 30 Giu. 2017, Angers, Francia, "Production de quarkonium en collisions ultra-relativistiques de noyaux lourdes avec ALICE a LHC";
- QGP France 2017, 9-12 Ott. 2017, Étretat, Francia, "Production de bttomonium en collisions ultra-relativistes de noyaux lourdes avec ALICE a LHC" e " O^2 and O^2 Muon";
- QGP France 2018, 2-5 Lug. 2017, Étretat, Francia, "Big Data and Big Science: tossing a trick coin";
- European Nuclear Physics Conference 2018, 2-7 Set. 2018, Bologna, Italia, "Quarkonium production in pp, p-Pb and Pb-Pb collisions with ALICE at the LHC";

Partecipazione a scuole

- XXV Giornate di Studio sui Rivelatori, 23-26 Feb. 2016, Cogne, Italia;
- Thematic CERN School of Computing 2017, 4-10 Giu. 2017, Spalato, Croazia;
- INFN Efficient Scientific Computing school 2017, 23-28 Ott. 2017, Bertinoro, Italia;
- Inverted CERN Computing School 2017 (come insegnante), 5-8 Mar. 2018, CERN, Svizzera;
- School on Open Science Cloud 2018, 17-21 Set. 2018, Perugia, Italia;

Visite e stages

- 12 mesi a Nantes (F) nell'ambito dell'accordo di cotutela (7 mesi nel 2017, 5 mesi nel 2018);
- 7 mesi a Ginevra per compiti legati ad ALICE ed al muon trigger (shift e meeting)

Elenco delle pubblicazioni

1. **“Event-shape engineering for the D-meson elliptic flow in mid-central Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1809.09371 [nucl-ex]
CERN-EP-2018-260
2. **“Measuring $K_S^0 K^\pm$ interactions using pp collisions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1809.07899 [nucl-ex]
CERN-EP-2018-234
3. **“Charged jet cross section and fragmentation in proton-proton collisions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1809.03232 [nucl-ex]
CERN-EP-2018-235
4. **“Energy dependence of exclusive J/ψ photoproduction off protons in ultra-peripheral p-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1809.03235 [nucl-ex]
CERN-EP-2018-236
5. **“Multiplicity dependence of light-flavor hadron production in pp collisions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1807.11321 [nucl-ex]

CERN-EP-2018-209
6. **“Medium modification of the shape of small-radius jets in central Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1807.06854 [nucl-ex]

CERN-EP-2018-201
7. **“Measurement of dielectron production in central Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1807.00923 [nucl-ex]
CERN-EP-2018-181
8. **“p-p, p- Λ and Λ - Λ correlations studied via femtoscopy in pp reactions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.12455 [nucl-ex]
CERN-EP-2018-150

9. **“Analysis of the apparent nuclear modification in peripheral Pb-Pb collisions at 5.02 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.05212 [nucl-ex]
CERN-EP-2018-115
10. **“Production of the $\rho(770)^0$ meson in pp and Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04365 [nucl-ex]
CERN-EP-2018-106
11. **“Anisotropic flow of identified particles in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04390 [nucl-ex]
DOI:10.1007/JHEP09(2018)006
JHEP **1809**, 006 (2018)
CERN-EP-2018-103
12. **“Azimuthal anisotropy of heavy-flavour decay electrons in p-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04367 [nucl-ex]
CERN-EP-2018-119
13. **“Measurements of low- p_{T} electrons from semileptonic heavy-flavour hadron decays at mid-rapidity in pp and Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04379 [nucl-ex]
CERN-EP-2018-095
14. **“Inclusive J/ψ production at forward and backward rapidity in p-Pb collisions at $\sqrt{s_{\text{NN}}} = 8.16$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04381 [nucl-ex]
DOI:10.1007/JHEP07(2018)160
JHEP **1807**, 160 (2018)
CERN-EP-2018-101
15. **“Suppression of $\Lambda(1520)$ resonance production in central Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04361 [nucl-ex]

CERN-EP-2018-116
16. **“Measurement of the inclusive J/ψ polarization at forward rapidity in pp collisions at $\sqrt{s} = 8$ TeV”**

- S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04374 [hep-ex]
DOI:10.1140/epjc/s10052-018-6027-2
Eur. Phys. J. C **78**, no. 7, 562 (2018)
CERN-EP-2018-098
17. **“Inclusive J/ψ production in Xe–Xe collisions at $\sqrt{s_{\text{NN}}} = 5.44$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04383 [nucl-ex]
DOI:10.1016/j.physletb.2018.08.047
Phys. Lett. B **785**, 419 (2018)
CERN-EP-2018-107
 18. **“ Υ suppression at forward rapidity in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04387 [nucl-ex]
CERN-EP-2018-114
 19. **“Dielectron production in proton-proton collisions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04391 [hep-ex]
DOI:10.1007/JHEP09(2018)064
JHEP **1809**, 064 (2018)
CERN-EP-2018-102
 20. **“Transverse momentum spectra and nuclear modification factors of charged particles in Xe-Xe collisions at $\sqrt{s_{\text{NN}}} = 5.44$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04399 [nucl-ex]
CERN-EP-2018-112
 21. **“Direct photon elliptic flow in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04403 [nucl-ex]
CERN-EP-2018-117
 22. **“Dielectron and heavy-quark production in inelastic and high-multiplicity proton-proton collisions at $\sqrt{s_{\text{NN}}} = 13$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04407 [hep-ex]
CERN-EP-2018-122
 23. **“Two particle differential transverse momentum and number density correlations in p-Pb and Pb-Pb at the LHC”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04422 [nucl-ex]
CERN-EP-2018-118
 24. **“Centrality and pseudorapidity dependence of the charged-particle multiplicity density in Xe-Xe collisions at $\sqrt{s_{\text{NN}}} = 5.44$ TeV”**

- S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.04432 [nucl-ex]
CERN-EP-2018-120
25. **“Anisotropic flow in Xe-Xe collisions at $\sqrt{s_{\text{NN}}} = 5.44$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1805.01832 [nucl-ex]
DOI:10.1016/j.physletb.2018.06.059
Phys. Lett. B **784**, 82 (2018)
CERN-EP-2018-090
26. **“Measurement of D^0 , D^+ , D^{*+} and D_s^+ production in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1804.09083 [nucl-ex]

CERN-EP-2018-066
27. **“ ϕ meson production at forward rapidity in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1804.08906 [nucl-ex]
DOI:10.1140/epjc/s10052-018-6034-3
Eur. Phys. J. C **78**, no. 7, 559 (2018)
CERN-EP-2018-082
28. **“Energy dependence and fluctuations of anisotropic flow in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ and 2.76 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1804.02944 [nucl-ex]
DOI:10.1007/JHEP07(2018)103
JHEP **1807**, 103 (2018)
CERN-EP-2018-057
29. **“Azimuthally-differential pion femtoscopy relative to the third harmonic event plane in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1803.10594 [nucl-ex]
DOI:10.1016/j.physletb.2018.06.042
Phys. Lett. B **785**, 320 (2018)
CERN-EP-2018-035
30. **“Direct photon production at low transverse momentum in proton-proton collisions at $\sqrt{s} = 2.76$ and 8 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1803.09857 [nucl-ex]
CERN-EP-2018-045
31. **“Neutral pion and η meson production at mid-rapidity in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1803.05490 [nucl-ex]

CERN-EP-2018-040

32. **“Transverse momentum spectra and nuclear modification factors of charged particles in pp, p-Pb and Pb-Pb collisions at the LHC”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1802.09145 [nucl-ex]
CERN-EP-2018-025

33. **“Prompt and non-prompt J/ψ production and nuclear modification at mid-rapidity in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1802.00765 [nucl-ex]
DOI:10.1140/epjc/s10052-018-5881-2
Eur. Phys. J. C **78**, no. 6, 466 (2018)
CERN-EP-2018-010

34. **“Neutral pion and η meson production in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1801.07051 [nucl-ex]
DOI:10.1140/epjc/s10052-018-6013-8
Eur. Phys. J. C **78**, no. 8, 624 (2018)
CERN-EP-2018-002

35. **“ Λ_c^+ production in pp collisions at $\sqrt{s} = 7$ TeV and in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1712.09581 [nucl-ex]
DOI:10.1007/JHEP04(2018)108
JHEP **1804**, 108 (2018)
CERN-EP-2017-339

36. **“Relative particle yield fluctuations in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1712.07929 [nucl-ex]

CERN-EP-2017-318

37. **“Constraints on jet quenching in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV measured by the event-activity dependence of semi-inclusive hadron-jet distributions”**

S. Acharya *et al.* [ALICE Collaboration].
arXiv:1712.05603 [nucl-ex]
DOI:10.1016/j.physletb.2018.05.059
Phys. Lett. B **783**, 95 (2018)
CERN-EP-2017-324

38. **“First measurement of Ξ_c^0 production in pp collisions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1712.04242 [hep-ex]
DOI:10.1016/j.physletb.2018.03.061
Phys. Lett. B **781**, 8 (2018)
CERN-EP-2017-332
39. **“Measurement of Z^0 -boson production at large rapidities in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1711.10753 [nucl-ex]
DOI:10.1016/j.physletb.2018.03.010
Phys. Lett. B **780**, 372 (2018)
CERN-EP-2017-305
40. **“Longitudinal asymmetry and its effect on pseudorapidity distributions in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1710.07975 [nucl-ex]
DOI:10.1016/j.physletb.2018.03.051
Phys. Lett. B **781**, 20 (2018)
CERN-EP-2017-277
41. **“Production of ^4He and $^4\overline{\text{He}}$ in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV at the LHC”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1710.07531 [nucl-ex]
DOI:10.1016/j.nuclphysa.2017.12.004
Nucl. Phys. A **971**, 1 (2018)
CERN-EP-2017-266
42. **“Production of deuterons, tritons, ^3He nuclei and their antinuclei in pp collisions at $\sqrt{s} = 0.9, 2.76$ and 7 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1709.08522 [nucl-ex]
DOI:10.1103/PhysRevC.97.024615
Phys. Rev. C **97**, no. 2, 024615 (2018)
CERN-EP-2017-255
43. **“Search for collectivity with azimuthal J/ψ -hadron correlations in high multiplicity p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ and 8.16 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1709.06807 [nucl-ex]
DOI:10.1016/j.physletb.2018.02.039
Phys. Lett. B **780**, 7 (2018)
CERN-EP-2017-245
44. **“ J/ψ elliptic flow in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].

arXiv:1709.05260 [nucl-ex]
DOI:10.1103/PhysRevLett.119.242301
Phys. Rev. Lett. **119**, no. 24, 242301 (2017)
CERN-EP-2017-237

45. **“Constraining the magnitude of the Chiral Magnetic Effect with Event Shape Engineering in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1709.04723 [nucl-ex]
DOI:10.1016/j.physletb.2017.12.021
Phys. Lett. B **777**, 151 (2018)
CERN-EP-2017-241
46. **“The ALICE Transition Radiation Detector: construction, operation, and performance”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1709.02743 [physics.ins-det]
DOI:10.1016/j.nima.2017.09.028
Nucl. Instrum. Meth. A **881**, 88 (2018)
CERN-EP-2017-222
47. **“Kaon femtoscopy in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1709.01731 [nucl-ex]
DOI:10.1103/PhysRevC.96.064613
Phys. Rev. C **96**, no. 6, 064613 (2017)
CERN-EP-2017-185
48. **“Systematic studies of correlations between different order flow harmonics in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1709.01127 [nucl-ex]
DOI:10.1103/PhysRevC.97.024906
Phys. Rev. C **97**, no. 2, 024906 (2018)
CERN-EP-2017-215
49. **“ π^0 and η meson production in proton-proton collisions at $\sqrt{s} = 8$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1708.08745 [hep-ex]
DOI:10.1140/epjc/s10052-018-5612-8
Eur. Phys. J. C **78**, no. 3, 263 (2018)
CERN-EP-2017-216
50. **“Charged-particle multiplicity distributions over a wide pseudorapidity range in proton-proton collisions at $\sqrt{s} = 0.9, 7,$ and 8 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1708.01435 [hep-ex]
DOI:10.1140/epjc/s10052-017-5412-6
Eur. Phys. J. C **77**, no. 12, 852 (2017)
CERN-EP-2017-192

51. **“Measurement of deuteron spectra and elliptic flow in Pb–Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV at the LHC”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1707.07304 [nucl-ex]
DOI:10.1140/epjc/s10052-017-5222-x
Eur. Phys. J. C **77**, no. 10, 658 (2017)
CERN-EP-2017-176
52. **“Searches for transverse momentum dependent flow vector fluctuations in Pb-Pb and p-Pb collisions at the LHC”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1707.05690 [nucl-ex]
DOI:10.1007/JHEP09(2017)032
JHEP **1709**, 032 (2017)
CERN-EP-2017-149
53. **“D-meson azimuthal anisotropy in midcentral Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1707.01005 [nucl-ex]
DOI:10.1103/PhysRevLett.120.102301
Phys. Rev. Lett. **120**, no. 10, 102301 (2018)
CERN-EP-2017-153
54. **“Measuring $K_S^0 K^\pm$ interactions using Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1705.04929 [nucl-ex]
DOI:10.1016/j.physletb.2017.09.009
Phys. Lett. B **774**, 64 (2017)
CERN-EP-2017-063
55. **“Linear and non-linear flow modes in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1705.04377 [nucl-ex]
DOI:10.1016/j.physletb.2017.07.060
Phys. Lett. B **773**, 68 (2017)
CERN-EP-2017-103
56. **“J/ ψ production as a function of charged-particle pseudorapidity density in p-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
D. Adamová *et al.* [ALICE Collaboration].
arXiv:1704.00274 [nucl-ex]
DOI:10.1016/j.physletb.2017.11.008
Phys. Lett. B **776**, 91 (2018)
CERN-EP-2017-056
57. **“Flow dominance and factorization of transverse momentum correlations in Pb-Pb collisions at the LHC”**
J. Adam *et al.* [ALICE Collaboration].

arXiv:1702.02665 [nucl-ex]
DOI:10.1103/PhysRevLett.118.162302
Phys. Rev. Lett. **118**, no. 16, 162302 (2017)
CERN-EP-2017-021

58. **“Azimuthally differential pion femtoscopy in Pb-Pb collisions at $\sqrt{s_{\text{NN}}} = 2.76$ TeV”**
D. Adamova *et al.* [ALICE Collaboration].
arXiv:1702.01612 [nucl-ex]
DOI:10.1103/PhysRevLett.118.222301
Phys. Rev. Lett. **118**, no. 22, 222301 (2017)
CERN-EP-2017-013
59. **“Production of muons from heavy-flavour hadron decays in p-Pb collisions at $\sqrt{s_{\text{NN}}} = 5.02$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1702.01479 [nucl-ex]
DOI:10.1016/j.physletb.2017.03.049
Phys. Lett. B **770**, 459 (2017)
CERN-EP-2017-022
60. **“Production of π^0 and η mesons up to high transverse momentum in pp collisions at 2.76 TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1702.00917 [hep-ex]
DOI:10.1140/epjc/s10052-017-5144-7, 10.1140/epjc/s10052-017-4890-x
Eur. Phys. J. C **77**, no. 5, 339 (2017), [Eur. Phys. J. C **77**, no. 9, 586 (2017)]
CERN-EP-2017-019
61. **“First measurement of jet mass in Pb-Pb and p-Pb collisions at the LHC”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1702.00804 [nucl-ex]
DOI:10.1016/j.physletb.2017.11.044
Phys. Lett. B **776**, 249 (2018)
CERN-EP-2017-016
62. **“Measurement of D-meson production at mid-rapidity in pp collisions at $\sqrt{s} = 7$ TeV”**
S. Acharya *et al.* [ALICE Collaboration].
arXiv:1702.00766 [hep-ex]
DOI:10.1140/epjc/s10052-017-5090-4
Eur. Phys. J. C **77**, no. 8, 550 (2017)
CERN-EP-2017-020
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