

# 2017

## Journal Paper with direct contribution

- Quarkonium production at the LHC: A data-driven analysis of remarkably simple experimental patterns P. Faccioli, C. Lourenço, M. Araújo, V. Knünz, I. Krätschmer, J. Seixas Phys.Lett. B773 (2017) 476-486 10.1016/j.physletb.2017.09.006
- Evaluation of Type-1 Hypervisors on Desktop-class Virtualization Hosts Duarte Pousa, José Rufino IADIS International Journal on Computer Science and Information Systems (ISSN 1646-3692), vol. 12, num. 2, pp. 86-101
- Evidence for the H to bb decay with the ATLAS detector ATLAS Collaboration (2856 authors) JHEP 12 (2017) 024 10.1007/JHEP12(2017)024
- 3D Modeling of Electric Fields in the LUX Detector D.S. Akerib et al. JINST 12 P11022 (2017) 10.1088/1748-0221/12/11/P11022
- Measurement of jet p(T) correlations in Pb+Pb and pp collisions at  $\sqrt{s(NN)}=2.76$  TeV with the ATLAS detector ATLAS Collaboration (2835 authors) Phys. Lett. B 774 (2017) 379-402 10.1016/j.physletb.2017.09.078
- Evidence for a Time Lag in Solar Modulation of Galactic Cosmic Rays Nicola Tomassetti, Miguel Orcinha, Fernando Barão, and Bruna Bertucci 2017 ApJL 849 L32 10.3847/2041-8213/aa9373
- Evidence for a Time Lag in Solar Modulation of Galactic Cosmic Rays Nicola Tomassetti, Miguel Orcinha, Fernando Barão, and Bruna Bertucci 2017 ApJL 849 L32 10.3847/2041-8213/aa9373
- Enabling rootless Linux Containers in multi-user environments: the udocker tool Jorge Gomes, Isabel Campos, Emanuele Bagnaschi, Mario David, Luis Alves, Joao Martins, Joao Pina, Alvaro Lopez-Garcia, Pablo Orviz Enabling rootless Linux Containers in multi-user environments: the udocker tool Jorge Gomes, Isabel Campos, Emanuele Bagnaschi, Mario David, Luis Alves, Joao Martins, Joao Pina, Alvaro Lopez-Garcia, Pablo Orviz. Nov 6, 2017. e-Print: arXiv:1711.01758 [cs.SE]
- INDIGO-DataCloud: A data and computing platform to facilitate seamless access to e-infrastructures D. Salomoni, I. Campos, L. Gaido, G. Donvito, P. Fuhrman, J. Marco, A. Lopez-Garcia, P. Orviz, I. Blanquer, G. Molto, M. Plociennik, M. Owsiak, M. Urbaniak, M. Hardt, A. Ceccanti, B. Wegh, J. Gomes, M. David, L. Alves, J. Pina, J. Martins, C. Aiftimiei, L. Dutka, S. Fiore, G. Aloisio, R. Barbera, R. Bruno, M. Fargetta, E. Giorgio, D. Spiga, S. Reynaud, L. Schwarz, T. Bell, R. Rocha, M. Viljoen arXiv:1711.01981 10.1007/s10723-018-9453-3
- Jet energy loss and equilibration Korinna C. Zapp Nucl.Phys. A967 (2017) 81-88 10.1016/j.nuclphysa.2017.06.018
- Physics with ions at the Future Circular Collider David d'Enterria, L. Apolinario, N. Armesto, A. Dainese, J. Jowett, J.P. Lansberg, S. Masciocchi, G. Milhano, C. Roland, C.A. Salgado, M.

- Schaumann, M. van Leeuwen, U.A. Wiedemann Nucl.Phys. A967 (2017) 888-891  
10.1016/j.nuclphysa.2017.06.029
- Pseudoscalar couplings in  $t(\bar{t})$  production at NLO plus NLL accuracy Alessandro Broggio, Andrea Ferroglia, Miguel C. N. Fiolhais, Antonio Onofre Phys. Rev. D 96 (2017) 073005 10.1103/PhysRevD.96.073005
  - Experimental ion mobility measurements in Xe-C<sub>2</sub>H<sub>6</sub> Perdigoto, JMC; Cortez, AFV; Veenhof, R ; Neves, PNB; Santos, FP; Borges, FIGM; Conde, CAN JOURNAL OF INSTRUMENTATION Volume: 12 Article Number: P10011 DOI: 10.1088/1748-0221/12/10/P10011 Published: OCT 2017 10.1088/1748-0221/12/10/P10011
  - First Measurement of Transverse-Spin-Dependent Azimuthal Asymmetries in the Drell-Yan Process M. Aghasyan et al. (219 authors) Phys. Rev. Lett. 119 (2017) 112002 10.1103/PhysRevLett.119.112002
  - An environmental dose experiment Luis Peralta European Journal of Physics,38 ( 2017) 065801 10.1088/1361-6404/aa7d1a
  - Monitoring tumor lung irradiation with megavoltage patient-scattered radiation: A full system simulation study H. Simões, A.L. Lopes, C. Travassos, P. Crespo, M. Alves Barros, J. Lencart, P.J.B.M. Rachinhas IEEE Trans. Radiat. Plasma Med. Sci. 1:5 (2017) 452-459 10.1109/TRPMS.2017.2724139
  - Experimental ion mobility measurements in Xe-CH<sub>4</sub> Perdigoto, JMC (Perdigoto, J. M. C.); Cortez, AFV (Cortez, A. F. V.); Veenhof, R (Veenhof, R.); Neves, PNB (Neves, P. N. B.); Santos, FP (Santos, F. P.); Borges, FIGM (Borges, F. I. G. M.); Conde, CAN (Conde, C. A. N.) JOURNAL OF INSTRUMENTATION Volume: 12 Article Number: P09003 DOI: 10.1088/1748-0221/12/09/P09003 Published: SEP 2017 10.1088/1748-0221/12/09/P09003
  - Factorization of in-medium parton branching beyond the eikonal approximation Liliana Apolinário, Néstor Armesto, José Guilherme Milhano, Carlos A. Salgado Nucl.Part.Phys.Proc. 289-290 (2017) 117-120 10.1016/j.nuclphysbps.2017.05.023
  - The angular structure of jet quenching within a hybrid strong/weak coupling model Jorge Casalderrey-Solana, Doga Can Gulhan, José Guilherme Milhano, Daniel Pablos, Krishna Rajagopal Nucl.Part.Phys.Proc. 289-290 (2017) 359-362 10.1016/j.nuclphysbps.2017.05.083
  - Medium Recoils and background subtraction in JEWEL Raghav Kunnawalkam Elayavalli, Korinna Christine Zapp Nucl.Part.Phys.Proc. 289-290 (2017) 368-371 10.1016/j.nuclphysbps.2017.05.085
  - SEP Protons in GEO measured with the ESA MultiFunctional Spectrometer Luisa Arruda, Patrícia Gonçalves, Ingmar Sandberg, Sigiava Giamini, Ioannis Daglis, Arlindo Marques, Joao Pinto, Adolfo Aguilar, Pedro Marinho, Tiago Sousa, Hugh Evans, Piers Jiggins, Alessandra Menicucci, Petteri Nieminen IEEE Trans. Nucl. Sci. 64 (2017) 2333-2339 10.1109/TNS.2017.2714461
  - Medium response in JEWEL and its impact on jet shape observables in heavy ion collisions Raghav Kunnawalkam Elayavalli, Korinna Christine Zapp JHEP 1707 (2017) 141 10.1007/JHEP07(2017)141
  - First measurement of the Sivers asymmetry for gluons using SIDIS data COMPASS Collaboration (228 authors) Phys. Lett. B 772 (2017) 854-864 10.1016/j.physletb.2017.07.018
  - Probing the CP nature of the Higgs coupling in  $t\bar{t}$  events at the LHC S. Amor dos Santos et al. (12 authors) Phys. Rev. D 96 (2017) 013004 10.1103/PhysRevD.96.013004

- Siverts asymmetry extracted in SIDIS at the hard scales of the Drell-Yan process at COMPASS C. Adolph et al. (225 authors) Phys. Lett. B 770 (2017) 138-145  
10.1016/j.physletb.2017.04.042
- LATTES: a new gamma-ray detector concept for South America P. Assis, U. Barres de Almeida, A. Blanco, R. Conceição, B. D'Ettore Piazzoli, A. de Angelis, M. Doro, P. Fonte, L. Lopes, G. Matthiae, M. Pimenta, R. Shellard, B. Tomé EPJ WEB CONF 136 (2017) UNSP 03013 10.1051/epjconf/e2016-62145-8, 10.1051/epjconf/201713603013
- Patient Compton scattered radiation for monitoring prostate radiotherapy with gold fiducial markers: A simulation study A.L. Lopes, H. Simões, C. Travassos, P. Crespo Int. J. Pharma Med. Biol. Sci. 6:3 (2017) 77-82 10.18178/ijpmb.6.3.77-82
- Experimental studies on ion mobility in xenon-trimethylamine mixtures Trindade, AMF (Trindade, A. M. F.); Encarnacao, PMCC (Encarnacao, P. M. C. C.); Escada, J (Escada, J.); Cortez, AFV (Cortez, A. F. V.); Neves, PNB (Neves, P. N. B.); Conde, CAN (Conde, C. A. N.); Borges, FIGM (Borges, F. I. G. M.); Santos, FP (Santos, F. P.) JOURNAL OF INSTRUMENTATION Volume: 12 Article Number: P07007 DOI: 10.1088/1748-0221/12/07/P07007 Published: JUL 2017 10.1088/1748-0221/12/07/P07007
- Limits on spin-dependent WIMP-nucleon cross section obtained from the complete LUX exposure D. S. Akerib et al. Phys. Rev. Lett. 118, 251302 (2017)  
10.1103/PhysRevLett.118.251302
- Heavy ions at the Future Circular Collider A. Dainese et al. CERN Yellow Report (2017) 635-692 10.23731/CYRM-2017-003.635
- Final COMPASS results on the deuteron spin-dependent structure function  $g(1)(d)$  and the Bjorken sum rule C. Adolph et al. (228 authors) Phys. Lett. B 769 (2017) 34-41  
10.1016/j.physletb.2017.03.018
- Experimental ion mobility measurements in Xe-CO<sub>2</sub> Cortez, AFV (Cortez, A. F. V.); Santos, MAG (Santos, M. A. G.); Veenhof, R (Veenhof, R.); Patra, RN (Patra, R. N.); Neves, PNB (Neves, P. N. B.); Santos, FP (Santos, F. P.); Borges, FIGM (Borges, F. I. G. M.); Conde, CAN (Conde, C. A. N.) JOURNAL OF INSTRUMENTATION Volume: 12 Article Number: P06012 DOI: 10.1088/1748-0221/12/06/P06012 Published: JUN 2017 10.1088/1748-0221/12/06/P06012
- LATTES: A new gamma-ray detector concept for South America P. Assis et al. (13 authors) Nuovo Cim. C-Colloq. Commun. Phys. 40 (2017) 116 10.1393/ncc/i2017-17116-4
- Measurement of B<sup>+</sup> production cross section at 13 TeV CMS Collaboration Physics Letters B 771 (2017) 435-456
- Performance of the ATLAS Trigger System in 2015 ATLAS Collaboration (2856 authors) Eur. Phys. J. C 77 (2017) 317. 10.1140/epjc/s10052-017-4852-3
- Measurement of the W polarization in tt events from pp collisions at  $\sqrt{s}=8$  TeV in the lepton+jets channel with ATLAS ATLAS collaboration (2850 authors) Eur.Phys.J. C79 (2019) 19, Eur. Phys. J. C 77 (2017) 4 264. 10.1140/epjc/s10052-017-4819-4,  
10.1140/epjc/s10052-018-6520-7
- Multiplicities of charged kaons from deep-inelastic muon scattering off an isoscalar target C. Adolph et al. (227 authors) Phys. Lett. B 767 (2017) 133-141  
10.1016/j.physletb.2017.01.053
- Iterative reconstruction of SiPM light response functions in a square-shaped compact gamma camera A. Morozov, F. Alves, J. Marcos, R. Martins, L. Pereira, V. Solovov, V. Chepel Phys. Med. Biol. 62 (2017) 3619-3638 10.1088/1361-6560/aa6029

- Leading-order determination of the gluon polarisation from semi-inclusive deep inelastic scattering data COMPASS Collaboration (221 authors) Eur. Phys. J. C 77 (2017) 209 10.1140/epjc/s10052-017-4716-x
- Angular Structure of Jet Quenching Within a Hybrid Strong/Weak Coupling Model Jorge Casalderrey-Solana, Doga Gulhan, Guilherme Milhano, Daniel Pablos, Krishna Rajagopal JHEP 1703 (2017) 135 10.1007/JHEP03(2017)135
- Measurements of top quark spin observables in tt events using dilepton final states in  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector ATLAS Collaboration (2873 authors) JHEP 03 (2017) 113 10.1007/JHEP03(2017)113
- Resonance production and  $\pi\pi$  S-wave in  $\pi(-) + p \rightarrow \pi(-)\pi(-)\pi(+)+p(\text{recoil})$  at 190 GeV/c COMPASS Collaboration (210 authors) Phys. Rev. D 95 (2017) 032004 10.1103/PhysRevD.95.032004
- In-medium parton branching beyond eikonal approximation Liliana Apolinário Few Body Syst. 58 (2017) 69 10.1007/s00601-017-1236-z
- Exclusive omega meson muoproduction on transversely polarised protons C. Adolph et al. (228 authors) Nucl. Phys. B 915 (2017) 454-475 10.1016/j.nuclphysb.2016.12.015
- Measurement of the absolute reflectance of polytetrafluoroethylene (PTFE) immersed in liquid xenon F. Neves, A. Lindote, A. Morozov, V. Solovov, C. Silva, P. Bras, J.P. Rodrigues and M.I. Lopes Journal of instrumentation, Vol.12 P01017 10.1088/1748-0221/12/01/P01017
- A novel portable energy dispersive X-ray fluorescence spectrometer with triaxial geometry Pessanha, S. and Alves, M. and Sampaio, J.M. and Santos, J.P. and Carvalho, M.L. and Guerra, M. 10.1088/1748-0221/12/01/P01014
- A measurement of the calorimeter response to single hadrons and determination of the jet energy scale uncertainty using LHC Run-1  $pp$ -collision data with the ATLAS detector ATLAS Collaboration (2852 authors) Eur. Phys. J. C 77 (2017) 26 10.1140/epjc/s10052-016-4580-0
- Results from a search for dark matter in the complete LUX exposure D. S. Akerib et al. Phys. Rev. Lett. 118, 021303 10.1103/PhysRevLett.118.021303
- Multiplicities of charged pions and charged hadrons from deep-inelastic scattering of muons off an isoscalar target C. Adolph et al. (233 authors) Phys. Lett. B 764 (2017) 1-10 10.1016/j.physletb.2016.09.042
- Recent progress on the understanding of the medium-induced jet evolution and energy loss in pQCD Liliana Apolinário EPJ Web Conf. 137 (2017) 07002 10.1051/epjconf/201713707002
- Sensitivity of EAS measurements to the energy spectrum of muons J. Espadanal, L. Cazon, R. Conceição Astroparticle Physics 86 (2017) 32-40 10.1016/j.astropartphys.2016.11.003
- Radon concentration assessment in water sources of public drinking of Covilhã's county, Portugal Margarida Inácio, Sandra Soares, Pedro Almeida Journal of Radiation Research and Applied Sciences, Volume 10, Number 2, 2017, 135-139 (5) 10.1016/j.jrras.2017.02.002

Journal Paper with indirect contribution (\*)

(\*) includes articles of international collaboration that used INCD infrastructure without direct contribution from Portuguese researchers.

- Gauge-Independent Renormalization of the N2HDM Marcel Krause, David Lopez-Val, Margarete Muhlleitner, Rui Santos J. High Energ. Phys. (2017) 2017: 77  
10.1007/JHEP12(2017)077
- Search for supersymmetry in events with at least one photon, missing transverse momentum, and large transverse event activity in proton-proton collisions at  $\sqrt{s}=13\text{TeV}$  CMS collaboration (2231 authors) J. High Energy Phys. 12 (2017) 142  
10.1007/JHEP12(2017)142
- Femtoscopy with identified charged pions in proton-lead collisions at  $\sqrt{s(NN)}=5.02\text{ TeV}$  with ATLAS ATLAS Collaboration (2847 authors) Phys. Rev. C 96 (2017) 064908  
10.1103/PhysRevC.96.064908
- Ultralow energy calibration of LUX detector using Xe-127 electron capture D. S. Akerib et al. (94 authors) Phys. Rev. D 96 (2017) 112011 10.1103/PhysRevD.96.112011
- Search for squarks and gluinos in events with an isolated lepton, jets, and missing transverse momentum at  $\sqrt{s}=13\text{ TeV}$  with the ATLAS detector ATLAS Collaboration (2875 authors) Phys. Rev. D 96 (2017) 112010 10.1103/PhysRevD.96.112010
- Kr-83m calibration of the 2013 LUX dark matter search LUX Collaboration (93 authors) Phys. Rev. D 96 (2017) 112009 10.1103/PhysRevD.96.112009
- Laboratory and beam test results of TOFFEE ASIC and ultra fast silicon detectors Roberta Arcidiacono, Nicolo Cartiglia, Francesca Cenna, Manuel Dionisio Da Rocha Rolo, Agostino Di Francesco, Federico Fausti, Marco Mignone, Elias Olave, Jose Carlos Rastreiro Da Silva, Angelo Rivetti, Rui Silva, Joao Varela PoS TWEPP-17 (2017) 028 10.22323/1.313.0028
- Search for direct top squark pair production in final states with two leptons in  $\sqrt{s}=13\text{ TeV}$  pp collisions with the ATLAS detector ATLAS Collaboration (2876 authors) Eur. Phys. J. C 77 (2017) 898 10.1140/epjc/s10052-017-5445-x
- Search for lepton flavour violating decays of the Higgs boson to  $\mu\mu$  and  $e\mu$  in proton-proton collisions at  $\sqrt{s}=13\text{ TeV}$  CMS collaboration (2270 authors) JHEP 1806 (2018) 001 10.1007/JHEP06(2018)001
- Observation of the Identical Rigidity Dependence of He, C, and O Cosmic Rays at High Rigidities by the Alpha Magnetic Spectrometer on the International Space Station AMS Collaboration (257 authors) Phys. Rev. Lett. 119 (2017) 251101  
10.1103/PhysRevLett.119.251101
- Observation of the Identical Rigidity Dependence of He, C, and O Cosmic Rays at High Rigidities by the Alpha Magnetic Spectrometer on the International Space Station AMS Collaboration (257 authors) Phys. Rev. Lett. 119 (2017) 251101  
10.1103/PhysRevLett.119.251101
- Determination of the strong coupling constant  $\alpha_s$  from transverse energy-energy correlations in multijet events at  $\sqrt{s}=8\text{ TeV}$  using the ATLAS detector ATLAS Collaboration (2874 authors) Eur. Phys. J. C 77 (2017) 872 10.1140/epjc/s10052-017-5442-0
- Search for a scalar partner of the top quark in the jets plus missing transverse momentum final state at  $\sqrt{s}=13\text{ TeV}$  with the ATLAS detector Atlas Collaboration (2864 authors) J. High Energy Phys. 12 (2017) 085 10.1007/JHEP12(2017)085

- Observation of Top Quark Production in Proton-Nucleus Collisions CMS Collaboration (2249 authors) Phys. Rev. Lett. 119 (2017) 242001 10.1103/PhysRevLett.119.242001
- Measurement of the Drell-Yan triple-differential cross section in pp collisions at  $\sqrt{s}=8$  TeV ATLAS Collaboration (2891 authors) J. High Energy Phys. 12 (2017) 059 10.1007/JHEP12(2017)059
- Constraints on anomalous Higgs boson couplings using production and decay information in the four-lepton final state A. M. Sirunyan et al. (2230 authors) Phys. Lett. B 775 (2017) 1-24 10.1016/j.physletb.2017.10.021
- Search for new phenomena in high-mass diphoton final states using 37 fb<sup>-1</sup> of proton-proton collisions collected at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2894 authors) Phys. Lett. B 775 (2017) 105-125 10.1016/j.physletb.2017.10.039
- Measurement of the cross-section for electroweak production of dijets in association with a Z boson in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2874 authors) Phys. Lett. B 775 (2017) 206-228 10.1016/j.physletb.2017.10.040
- Search for a heavy composite Majorana neutrino in the final state with two leptons and two quarks at  $\sqrt{s}=13$  TeV CMS Collaboration (2217 authors) Phys. Lett. B 775 (2017) 315-337 10.1016/j.physletb.2017.11.001
- Search for dark matter produced in association with heavy-flavor quark pairs in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2193 authors) Eur. Phys. J. C 77 (2017) 845 10.1140/epjc/s10052-017-5317-4
- Search for dark matter in association with a Higgs boson decaying to two photons at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2874 authors) Phys. Rev. D 96 (2017) 112004 10.1103/PhysRevD.96.112004
- Inferences on Mass Composition and Tests of Hadronic Interactions from 0.3 to 100 EeV using the water-Cherenkov Detectors of the Pierre Auger Observatory The Pierre Auger Collaboration Phys. Rev. D 96, 122003 (2017) 10.1103/PhysRevD.96.122003
- Search for new phenomena with large jet multiplicities and missing transverse momentum using large-radius jets and flavour-tagging at ATLAS in 13 TeV pp collisions ATLAS Collaboration (2878 authors) J. High Energy Phys. 12 (2017) 034 10.1007/JHEP12(2017)034
- Measurement of charged pion, kaon, and proton production in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2228 authors) Phys. Rev. D 96 (2017) 112003 10.1103/PhysRevD.96.112003
- Principal-component analysis of two-particle azimuthal correlations in PbPb and  $\sqrt{s_{NN}}=2.76$  TeV collisions at CMS CMS collaboration (2220 authors) Phys.Rev. C96 (2017) 064902 10.1103/PhysRevC.96.064902
- Analysis of the Wtb vertex from the measurement of triple-differential angular decay rates of single top quarks produced in the t-channel at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2870 authors) J. High Energy Phys. 12 (2017) 017 10.1007/JHEP12(2017)017
- Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory ANTARES Collaboration / IceCube Collaboration / Pierre Auger Collaboration / LIGO Sci Collaboration & Virgo (1940 authors) Astrophys. J. Lett. 850 (2017) L35 10.3847/2041-8213/aa9aed
- Search for Evidence of the Type-III Seesaw Mechanism in Multilepton Final States in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV CMS collaboration

- (2240 authors) Phys.Rev.Lett. 119 (2017) 221802 10.1103/PhysRevLett.119.221802
- Study of the material of the ATLAS inner detector for Run 2 of the LHC ATLAS Collaboration (2868 authors) J. Instrum. 12 (2017) P12009 10.1088/1748-0221/12/12/P12009
  - Search for super symmetry inevents with b-tagged jets and missing transverse momentum in pp collisions at root s=13 TeV with the ATLAS detector ATLAS Collaboration (2882 authors) J. High Energy Phys. 11 (2017) 195 10.1007/JHEP11(2017)195
  - Study of ordered hadron chains with the ATLAS detector ATLAS Collaboration (2872 authors) Phys. Rev. D 96 (2017) 092008 10.1103/PhysRevD.96.092008
  - Measurements of top-quark pair differential cross-sections in the lepton plus jets channel in pp collisions at root s=13 TeV using the ATLAS detector ATLAS Collaboration (2840 authors) J. High Energy Phys. 11 (2017) 191 10.1007/JHEP11(2017)191
  - Measurement of lepton differential distributions and the top quark mass in  $t\bar{t}$  production in  $pp$  collisions at a root  $s = 8$  TeV with the ATLAS detector ATLAS Collaboration (2900 authors) Eur. Phys. J. C 77 (2017) 804 10.1140/epjc/s10052-017-5349-9
  - Search for neutron-antineutron oscillations at the Sudbury Neutrino Observatory B. Aharmin (SNO Collaboration) (incl. J. Maneira, G. Prior) Phys. Rev. D 96, 092005 10.1103/PhysRevD.96.092005
  - Measurement of detector-corrected observables sensitive to the anomalous production of events with jets and large missing transverse momentum in pp collisions at root s=13 TeV using the ATLAS detector ATLAS Collaboration (2889 authors) Eur. Phys. J. C 77 (2017) 765 10.1140/epjc/s10052-017-5315-6
  - Measurement of the  $t\bar{t}$  gamma production cross section in proton-proton collisions at root s=8 TeV with the ATLAS detector ATLAS Collaboration (2873 authors) J. High Energy Phys. 11 (2017) 086 10.1007/JHEP11(2017)086
  - Search for pair production of vector-like T and B quarks in single-lepton final states using boosted jet substructure in proton-proton collisions at root s=13 TeV CMS Collaboration (2226 authors) J. High Energy Phys. 11 (2017) 085 10.1007/JHEP11(2017)085
  - Search for black holes and other new phenomena in high-multiplicity final states in proton-proton collisions at root s=13 TeV A. M. Sirunyan et al. (2228 authors) Phys. Lett. B 774 (2017) 279-307 10.1016/j.physletb.2017.09.053
  - Search for heavy resonances decaying to a W or Z boson and a Higgs boson in the  $q\bar{q}b\bar{b}$  final state in pp collisions at root s =13 TeV with the ATLAS detector Atlas Collaboration (2873 authors) Phys. Lett. B 774 (2017) 494-515 10.1016/j.physletb.2017.09.066
  - Combination of searches for heavy resonances decaying to WW, WZ, ZZ, WH, and ZH boson pairs in proton-proton collisions at root s=8 and 13 TeV CMS Collaboration (2190 authors) Phys. Lett. B 774 (2017) 533-558 10.1016/j.physletb.2017.09.083
  - Measurement of vector boson scattering and constraints on anomalous quartic couplings from events with four leptons and two jets in proton-proton collisions at root s=13 TeV CMS Collaboration (2237 authors) Phys. Lett. B 774 (2017) 682-705 10.1016/j.physletb.2017.10.020
  - Measurement of  $b\bar{b}$ -hadron pair production with the ATLAS detector in proton-proton collisions at  $\sqrt{s}=8$  TeV ATLAS collaboration (2863 authors) JHEP 1711 (2017) 062 10.1007/JHEP11(2017)062

- Measurements of properties of the Higgs boson decaying into the four-lepton final state in pp collisions at  $\sqrt{s}=13$  TeV A. M. Sirunyan et al. (2239 authors) J. High Energy Phys. 11 (2017) 047 10.1007/JHEP11(2017)047
- Search for Heavy Higgs Bosons A/H Decaying to a Top Quark Pair in pp Collisions at  $\sqrt{s}=8$  TeV with the ATLAS Detector ATLAS Collaboration (2863 authors) Phys. Rev. Lett. 119 (2017) 191803 10.1103/PhysRevLett.119.191803
- Measurements of the associated production of a Z boson and b jets in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2295 authors) Eur. Phys. J. C 77 (2017) 751 10.1140/epjc/s10052-017-5140-y
- Search for electroweak production of charginos and neutralinos in WH events in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS collaboration (2232 authors) JHEP 1711 (2017) 029 10.1007/JHEP11(2017)029
- Effective proton-neutron interaction near the drip line from unbound states in F-25,F-26 M. Vanderbrouck, A. Lepailleur, O. Sorlin, ..., A. Henriques, ... , D. Galaviz, ..., P. Velho, et al. Phys. Rev. C 96, 054305 (2017) 10.1103/PhysRevC.96.054305
- Measurement of the triple-differential dijet cross section in proton-proton collisions at  $\sqrt{s}=8$  TeV and constraints on parton distribution functions CMS Collaboration (2229 authors) Eur. Phys. J. C 77 (2017) 746 10.1140/epjc/s10052-017-5286-7
- Search for a light pseudoscalar Higgs boson produced in association with bottom quarks in pp collisions at  $\sqrt{s}=8$  TeV CMS collaboration (2235 authors) J. High Energy Phys. 11 (2017) 010 10.1007/JHEP11(2017)010
- Search for Dark Matter Produced in Association with a Higgs Boson Decaying to  $b\bar{b}$  Using 36 fb<sup>-1</sup> of pp Collisions at  $\sqrt{s}=13$  TeV with the ATLAS Detector ATLAS Collaboration (2879 authors) Phys. Rev. Lett. 119 (2017) 181804 10.1103/PhysRevLett.119.181804
- Heavy Ion Results from ATLAS ATLAS Collaboration (2853 authors) Nucl. Phys. A 967 (2017) 51-58 10.1016/j.nuclphysa.2017.05.076
- Measurements of photo-nuclear jet production in Pb plus Pb collisions with ATLAS ATLAS Collaboration (2849 authors) Nucl. Phys. A 967 (2017) 277-280 10.1016/j.nuclphysa.2017.06.041
- Measurement of the differential cross sections for the associated production of a W boson and jets in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2234 authors) Phys. Rev. D 96 (2017) 072005 10.1103/PhysRevD.96.072005
- Search for new high-mass phenomena in the dilepton final state using 36 fb<sup>-1</sup> of proton-proton collision data at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2868 authors) J. High Energy Phys. 10 (2017) 182 10.1007/JHEP10(2017)182
- Search for associated production of dark matter with a Higgs boson decaying to  $b\bar{b}$  or  $\gamma\gamma$  at  $\sqrt{s}=13$  TeV CMS Collaboration (2233 authors) J. High Energy Phys. 10 (2017) 180 10.1007/JHEP10(2017)180
- Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector (vol 77, 580, 2017) ATLAS Collaboration (2863 authors) Eur. Phys. J. C 77 (2017) 712 10.1140/epjc/s10052-017-5245-3
- Search for new phenomena with the M-T2 variable in the all-hadronic final state produced in proton-proton collisions at  $\sqrt{s}=13$ TeV CMS Collaboration (2234 authors) Eur. Phys. J. C 77 (2017) 710 10.1140/epjc/s10052-017-5267-x

- Search for pair production of heavy vector-like quarks decaying to high-p(T) W bosons and b quarks in the lepton-plus-jets final state in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2856 authors) J. High Energy Phys. 10 (2017) 141  
10.1007/JHEP10(2017)141
- Search for Higgs boson pair production in the bb tau state in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2257 authors) Phys. Rev. D 96 (2017) 072004  
10.1103/PhysRevD.96.072004
- Multi-messenger Observations of a Binary Neutron Star Merger LIGO Sci Collaboration & Virgo / Fermi GBM / INTERGRAL / IceCube Collaboration / AstroSat Cadmium Zinc Telluride / IPN Collaboration / Insight-Hxmt Collaboration / ANTARES Collaboration / Swift Collaboration / AGILE Team / The 1M2H Team / Dark Energy Camera GW-EM / DLT40 Collaboration / GRAWITA GRAvitational Wave / Fermi Large Area Telescope / ATCA Australia Telescope / ASKAP Australian SKA Pathfinder / Las Cumbres Observatory Grp / OzGrav DWF Deeper Wider Faster / VINROUGE Collaboration / MASTER Collaborat Astrophys. J. Lett. 848 (2017) L12 10.3847/2041-8213/aa91c9
- Search for top quark decays  $t \rightarrow qH$ , with  $H \rightarrow \gamma\gamma$ , in  $\sqrt{s}=13$  TeV pp collisions using the ATLAS detector ATLAS Collaboration (2862 authors) J. High Energy Phys. 10 (2017) 129 10.1007/JHEP10(2017)129
- Measurement of inclusive and differential cross sections in the  $H \rightarrow ZZ^* \rightarrow 4l$  decay channel in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2876 authors) J. High Energy Phys. 10 (2017) 132 10.1007/JHEP10(2017)132
- Measurements of jet charge with dijet events in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2228 authors) J. High Energy Phys. 10 (2017) 131  
10.1007/JHEP10(2017)131
- Searches for the Z gamma decay mode of the Higgs boson and for new high-mass resonances in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS collaboration (2878 authors) J. High Energy Phys. 10 (2017) 112 10.1007/JHEP10(2017)112
- Jet energy scale measurements and their systematic uncertainties in proton-proton collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2838 authors) Phys. Rev. D 96 (2017) 072002 10.1103/PhysRevD.96.072002
- Measurement of the B-+/- Meson Nuclear Modification Factor in Pb-Pb Collisions at  $\sqrt{s(NN)}=5.02$  TeV CMS Collaboration (2196 authors) Phys. Rev. Lett. 119 (2017) 152301  
10.1103/PhysRevLett.119.152301
- Search for Supersymmetry in pp Collisions at  $\sqrt{s}=13$  TeV in the Single-Lepton Final State Using the Sum of Masses of Large-Radius Jets CMS Collaboration (2235 authors) Phys. Rev. Lett. 119 (2017) 151802 10.1103/PhysRevLett.119.151802
- Search for light bosons in decays of the 125 GeV Higgs boson in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2270 authors) J. High Energy Phys. 10 (2017) 076  
10.1007/JHEP10(2017)076
- Search for new physics in the monophoton final state in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2226 authors) J. High Energy Phys. 10 (2017) 073  
10.1007/JHEP10(2017)073
- Performance of the ATLAS track reconstruction algorithms in dense environments in LHC Run 2 Atlas Collaboration (2865 authors) Eur. Phys. J. C 77 (2017) 673  
10.1140/epjc/s10052-017-5225-7

- Measurements of the  $pp \rightarrow W\gamma$  and  $pp \rightarrow Z\gamma$  cross sections and limits on anomalous quartic gauge couplings at  $\sqrt{s}=8$  TeV CMS collaboration (2228 authors) JHEP 1710 (2017) 072 10.1007/JHEP10(2017)072
- Measurement of the  $W^+ W^-$  production cross section in pp collisions at a centre-of-mass energy of  $\sqrt{s}=13$  TeV with the ATLAS experiment ATLAS Collaboration (2840 authors) Phys. Lett. B 773 (2017) 354-374 10.1016/j.physletb.2017.08.047
- Search for leptophobic  $Z'$  bosons decaying into four-lepton final states in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2255 authors) Phys. Lett. B 773 (2017) 563-584 10.1016/j.physletb.2017.08.069
- Search for Charged Higgs Bosons Produced via Vector Boson Fusion and Decaying into a Pair of W and Z Bosons Using pp Collisions at  $\sqrt{s}=13$  TeV CMS Collaboration / Ferri, F / Berger, J / Rabbertz, K / Shvetsov, I / Evangelou, I / CMS Collaboration (2222 authors) Phys. Rev. Lett. 119 (2017) 141802 10.1103/PhysRevLett.119.141802
- Search for top squark pair production in pp collisions at  $\sqrt{s}=13$  TeV using single lepton events CMS Collaboration (2231 authors) J. High Energy Phys. 10 (2017) 019 10.1007/JHEP10(2017)019
- Measurement of the semileptonic  $t\bar{t} + \gamma$  production cross section in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2230 authors) J. High Energy Phys. 10 (2017) 006 10.1007/JHEP10(2017)006
- Search for direct production of super symmetric partners of the top quark in the all-jets final state in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2233 authors) J. High Energy Phys. 10 (2017) 005 10.1007/JHEP10(2017)005
- Testing hadronic interactions with the Pierre Auger Observatory Francisco Diogo Nucl.Part.Phys.Proc. 291-293 (2017) 146-151 10.1016/j.nuclphysbps.2017.06.029
- Secondary scintillation yield of xenon with sub-percent levels of CO<sub>2</sub> additive for rare-event detection The NEXT Collaboration Physics Letters B (2017) 773 663-671 10.1016/j.physletb.2017.09.017
- Particle-flow reconstruction and global event description with the CMS detector CMS collaboration (2228 authors) J. Instrum. 12 (2017) P10003 10.1088/1748-0221/12/10/P10003
- Spectral calibration of the fluorescence telescopes of the Pierre Auger Observatory Pierre Auger Collaboration (404 authors) Astropart Phys. 95 (2017) 44-56 10.1016/j.astropartphys.2017.09.001
- Calibration of the logarithmic-periodic dipole antenna (LPDA) radio stations at the Pierre Auger Observatory using an octocopter Pierre Auger Collaboration (402 authors) J. Instrum. 12 (2017) T10005 10.1088/1748-0221/12/10/T10005
- Search for new phenomena in dijet events using 37 fb<sup>-1</sup> of pp collision data collected at  $\sqrt{s}=13$  TeV with the ATLAS detector M. Aaboud et al. (2863 authors) Phys. Rev. D 96 (2017) 052004 10.1103/PhysRevD.96.052004
- A facility for pion-induced nuclear reaction studies with HADES HADES Collaboration (113 authors) Eur. Phys. J. A 53 (2017) 188 10.1140/epja/i2017-12365-7
- Study of  $WW$  gamma and  $WZ$  gamma production in pp collisions at  $\sqrt{s}=8$  TeV and search for anomalous quartic gauge couplings with the ATLAS experiment ATLAS Collaboration (2873 authors) Eur. Phys. J. C 77 (2017) 646 10.1140/epjc/s10052-017-5180-

- Top-quark mass measurement in the all-hadronic  $t\bar{t}$  decay channel at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS collaboration (2854 authors) JHEP 1709 (2017) 118 10.1007/JHEP09(2017)118
- Identification of Radiopure Titanium for the LZ Dark Matter Experiment and Future Rare Event Searches D.S. Akerib et al. Astroparticle Physics, 96, 1 (2017) 10.1016/j.astropartphys.2017.09.002
- Search for new phenomena with multiple charged leptons in proton-proton collisions at  $\sqrt{s}=13$ TeV CMS Collaboration (2282 authors) Eur. Phys. J. C 77 (2017) 635 10.1140/epjc/s10052-017-5182-1
- Search for heavy resonances that decay into a vector boson and a Higgs boson in hadronic final states at  $\sqrt{s}=13$ TeV CMS Collaboration (2231 authors) Eur. Phys. J. C 77 (2017) 636 10.1140/epjc/s10052-017-5192-z
- Observation of a large-scale anisotropy in the arrival directions of cosmic rays above  $8 \times 10^{18}$  eV Pierre Auger Collaboration (406 authors) Science 357 (2017) 1266-1270 10.1126/science.aan4338
- Search for dark matter and unparticles in events with a Z boson and missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13$  TeV (vol 3, 061, 2017) CMS Collaboration (2244 authors) J. High Energy Phys. 9 (2017) 106 10.1007/JHEP03(2017)061, 10.1007/JHEP09(2017)106, 10.1007/JHEP01(2018)056
- Search for supersymmetry in final states with two same-sign or three leptons and jets using  $36 \text{ fb}^{-1}$  of  $\sqrt{s} = 13$  TeV  $pp$  collision data with the ATLAS detector ATLAS collaboration (2877 authors) J. High Energy Phys. 9 (2017) 084 10.1007/JHEP09(2017)084
- Search for new phenomena in a lepton plus high jet multiplicity final state the ATLAS experiment using  $\sqrt{s}=13$  TeV proton-proton collision data M. Aaboud et al. (2861 authors) J. High Energy Phys. 9 (2017) 088 10.1007/JHEP09(2017)088
- Search for Low Mass Vector Resonances Decaying to Quark-Antiquark Pairs in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2231 authors) Phys. Rev. Lett. 119 (2017) 111802 10.1103/PhysRevLett.119.111802
- Search for a heavy resonance decaying to a top quark and a vector-like top quark at  $\sqrt{s}=13$  TeV CMS Collaboration (2230 authors) J. High Energy Phys. 9 (2017) 053 10.1007/JHEP09(2017)053
- Measurement of the  $t\bar{t}$  production cross section using events with one lepton and at least one jet in  $pp$  collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2245 authors) J. High Energy Phys. 9 (2017) 051 10.1007/JHEP09(2017)051
- Search for standard model production of four top quarks in proton-proton collisions at  $\sqrt{s}=13$ TeV CMS Collaboration (2233 authors) Phys. Lett. B 772 (2017) 336-358 10.1016/j.physletb.2017.06.064
- Search for high-mass Z gamma resonances in proton-proton collisions at  $\sqrt{s}=8$  and 13 TeV using jet substructure techniques CMS Collaboration (2228 authors) Phys. Lett. B 772 (2017) 363-387 10.1016/j.physletb.2017.06.062
- Coherent  $J/\psi$  photoproduction in ultra-peripheral PbPb collisions at  $\sqrt{s(NN)}=2.76$  TeV with the CMS experiment CMS Collaboration (2298 authors) Phys. Lett. B 772 (2017) 489-511 10.1016/j.physletb.2017.07.001
- Search for single production of vector-like quarks decaying into a b quark and a W boson in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2235 authors) Phys. Lett.

B 772 (2017) 634-656 10.1016/j.physletb.2017.07.022

- Cross section measurement of t-channel single top quark production in pp collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2268 authors) Phys. Lett. B 772 (2017) 752-776 10.1016/j.physletb.2017.07.047
- Measurements of the charm jet cross section and nuclear modification factor in pPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV CMS collaboration (2270 authors) Phys.Lett. B772 (2017) 306-329 10.1016/j.physletb.2017.06.053
- Search for anomalous couplings in boosted  $WW/WZ$  oell  $umathrm{ q ar{q} }$ production in proton-proton collisions at  $\sqrt{s} = 8$  TeV CMS collaboration (2235 authors) Phys.Lett. B772 (2017) 21-42 10.1016/j.physletb.2017.06.009$
- Measurement of the inclusive jet cross-sections in proton-proton collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2852 authors) J. High Energy Phys. 9 (2017) 020 10.1007/JHEP09(2017)020
- Identification and rejection of pile-up jets at high pseudorapidity with the ATLAS detector ATLAS Collaboration (2863 authors) Eur. Phys. J. C 77 (2017) 580 10.1140/epjc/s10052-017-5081-5, 10.1140/epjc/s10052-017-5245-3
- Search for physics beyond the standard model in events with two leptons of same sign, missing transverse momentum, and jets in proton-proton collisions at  $\sqrt{s}=13$ TeV CMS Collaboration (2227 authors) Eur. Phys. J. C 77 (2017) 578 10.1140/epjc/s10052-017-5079-z
- Non-parametric determination of H and He interstellar fluxes from cosmic-ray data (vol 591, A94, 2016) A. Ghelfi, F. Barao, L. Derome, D. Maurin Astron. Astrophys. 605 (2017) C2 10.1051/0004-6361/201527852e
- Non-parametric determination of H and He interstellar fluxes from cosmic-ray data (vol 591, A94, 2016) A. Ghelfi, F. Barao, L. Derome, D. Maurin Astron. Astrophys. 605 (2017) C2 10.1051/0004-6361/201527852e
- Evidence for light-by-light scattering in heavy-ion collisions with the ATLAS detector at the LHC ATLAS Collaboration (2834 authors) Nat. Phys. 13 (2017) 852-+ 10.1038/nphys4208
- The hadronic interaction model SIBYLL 2.3c and Feynman scaling Felix Riehn, Hans P. Dembinski, Ralph Engel, Anatoli Fedynitch, Thomas K. Gaisser, Todor Stanev PoS 35 (2018) 301 10.22323/1.301.0301
- Phenomenological comparison of models with extended Higgs sectors Margarete Muehlleitner, Marco O. P. Sampaio, Rui Santos, Jonas Wittbrodt J. High Energy Phys. 8 (2017) 132 10.1007/JHEP08(2017)132
- Search for supersymmetry in multijet events with missing transverse momentum in proton-proton collisions at 13 TeV CMS Collaboration (2227 authors) Phys. Rev. D 96 (2017) 032003 10.1103/PhysRevD.96.032003
- Study of Jet Quenching with Z plus jet Correlations in Pb-Pb and pp Collisions at  $\sqrt{s(NN)}=5.02$  TeV A. M. Sirunyan et al. (2239 authors) Phys. Rev. Lett. 119 (2017) 082301 10.1103/PhysRevLett.119.082301
- Measurements of long-range azimuthal anisotropies and associated Fourier coefficients for pp collisions at  $\sqrt{s}=5.02$  and 13 TeV and p plus Pb collisions at  $\sqrt{s(NN)}=5.02$  TeV with the ATLAS detector ATLAS Collaboration (2826 authors) Phys. Rev. C 96 (2017) 024908 10.1103/PhysRevC.96.024908
- Measurement of the top quark mass in the dileptonic  $t(\bar{t})$  decay channel using the mass observables  $M_{bl}$ ,  $M_{T2}$ , and  $M_{blv}$  in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration

- (2232 authors) Phys. Rev. D 96 (2017) 032002 10.1103/PhysRevD.96.032002
- Measurement of WW/WZ  $\rightarrow$   $l\nu q\bar{q}$  production with the hadronically decaying boson reconstructed as one or two jets in pp collisions at  $\sqrt{s}=8$  TeV with ATLAS, and constraints on anomalous gauge couplings ATLAS Collaboration (2877 authors) Eur. Phys. J. C 77 (2017) 563 10.1140/epjc/s10052-017-5084-2
  - Measurement of the charge asymmetry in top-quark pair production in the lepton-plus-jets final state in pp collision data at  $\sqrt{s} = 8$  TeV with the ATLAS detector Atlas Collaboration (2849 authors) Eur. Phys. J. C 77 (2017) 10.1140/epjc/s10052-017-5089-x
  - Search for top quark partners with charge 5/3 in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2192 authors) J. High Energy Phys. 8 (2017) 073 10.1007/JHEP08(2017)073
  - Search for pair production of vector-like top quarks in events with one lepton, jets, and missing transverse momentum in  $\sqrt{s}=13$  TeV pp collisions with the ATLAS detector ATLAS Collaboration (2858 authors) J. High Energy Phys. 8 (2017) 1-40 10.1007/JHEP08(2017)052
  - Measurement of the inclusive energy spectrum in the very forward direction in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2235 authors) J. High Energy Phys. 8 (2017) 046 10.1007/JHEP08(2017)046
  - Search for single production of a heavy vector-like T quark decaying to a Higgs boson and a top quark with a lepton and jets in the final state CMS Collaboration (2286 authors) Phys. Lett. B 771 (2017) 80-105 10.1016/j.physletb.2017.05.019
  - Measurement of the total and differential inclusive  $B^+ \rightarrow \ell^+ \nu_\ell$  hadron cross sections in pp collisions at  $\sqrt{s} = 13$  TeV CMS collaboration (2262 authors) Phys.Lett. B771 (2017) 435-456 10.1016/j.physletb.2017.05.074
  - search for dark matter in proton-proton collisions at 8 TeV with missing transverse momentum and vector boson tagged jet (vol 12, 083, 2016) CMS Collaboration (2266 authors) J. High Energy Phys. 8 (2017) 035 10.1007/JHEP08(2017)035
  - Fiducial, total and differential cross-section measurements of t-channel single top-quark production in pp collisions at 8TeV using data collected by the ATLAS detector ATLAS Collaboration (2843 authors) Eur. Phys. J. C 77 (2017) 531 10.1140/epjc/s10052-017-5061-9
  - Searches for  $W^+$  bosons decaying to a top quark and a bottom quark in proton-proton collisions at 13TeV CMS Collaboration (2205 authors) J. High Energy Phys. 8 (2017) 1-42 10.1007/JHEP08(2017)029
  - Measurement of the  $k_{\text{splitting}}$  scales in  $Z \rightarrow \ell\ell$  events in  $pp$  collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector ATLAS collaboration (2858 authors) JHEP 1708 (2017) 026 10.1007/JHEP08(2017)026
  - Search for the Dimuon Decay of the Higgs Boson in pp Collisions at  $\sqrt{s}=13$  TeV with the ATLAS Detector ATLAS Collaboration (2872 authors) Phys. Rev. Lett. 119 (2017) 051802 10.1103/PhysRevLett.119.051802
  - Search for direct top squark pair production in events with a Higgs or Z boson, and missing transverse momentum in  $\sqrt{s}=13$  TeV pp collisions with the ATLAS detector M. Aaboud et al. (2876 authors) J. High Energy Phys. 8 (2017) 006 10.1007/JHEP08(2017)006
  - Application and performance of an ML-EM algorithm in NEXT The NEXT Collaboration (69 authors) J. Instrum. 12 (2017) P08009 10.1088/1748-0221/12/08/P08009

- Application and performance of an ML-EM algorithm in NEXT The NEXT Collaboration (69 authors) J. Instrum. 12 (2017) P08009 10.1088/1748-0221/12/08/P08009
- Radiopurity assessment of the energy readout for the NEXT double beta decay experiment S. Cebrian et al. (70 authors) J. Instrum. 12 (2017) T08003 10.1088/1748-0221/12/08/T08003
- Pseudorapidity dependence of long-range two-particle correlations in pPb collisions at root s<sub>NN</sub>=5.02 TeV V. Khachatryan et al. (2273 authors) Phys. Rev. C 96 (2017) 014915 10.1103/PhysRevC.96.014915
- Measurement of (WW +/-)-W+/- vector-boson scattering and limits on anomalous quartic gauge couplings with the ATLAS detector ATLAS Collaboration (2855 authors) Phys. Rev. D 96 (2017) 012007 10.1103/PhysRevD.96.012007
- Data-driven model of the cosmic-ray flux and mass composition from 10 GeV to  $10^{11}$  GeV Hans Peter Dembinski, Ralph Engel, Anatoli Fedynitch, Thomas Gaisser, Felix Riehn, Todor Stanev PoS 35 (2018) 533 10.22323/1.301.0533
- Search for third-generation scalar leptoquarks and heavy right-handed neutrinos in final states with two tau leptons and two jets in proton-proton collisions at root s=13 TeV A. M. Sirunyan et al. (2232 authors) J. High Energy Phys. 7 (2017) 121 10.1007/JHEP07(2017)121
- Search for supersymmetry in the all-hadronic final state using top quark tagging in pp collisions at root s=13 TeV CMS Collaboration (2281 authors) Phys. Rev. D 96 (2017) 012004 10.1103/PhysRevD.96.012004
- Topological cell clustering in the ATLAS calorimeters and its performance in LHC Run 1 Atlas Collaboration (2873 authors) Eur. Phys. J. C 77 (2017) 490 10.1140/epjc/s10052-017-5004-5
- Studies of Z gamma production in association with a high-mass dijet system in pp collisions at root s=8 TeV with the ATLAS detector ATLAS Collaboration (2857 authors) J. High Energy Phys. 7 (2017) 107 10.1007/JHEP07(2017)107
- Analysis of the exclusive final state npe(+)e(-) in the quasi-free np reaction HADES Collaboration (117 authors) Eur. Phys. J. A 53 (2017) 149 10.1140/epja/i2017-12341-3
- Review of bottomonium measurements from CMS Z. Hu, Nuno T. Leonardo, T. Liu, M. Haytmyradov Int.J.Mod.Phys. A32 (2017) 1730015 10.1142/S0217751X17300150
- NLO electroweak corrections in general scalar singlet models Raul Costa, Marco O. P. Sampaio, Rui Santos J. High Energy Phys. 7 (2017) 081 10.1007/JHEP07(2017)081
- Measurements of electroweak W j j production and constraints on anomalous gauge couplings with the ATLAS detector ATLAS Collaboration (2837 authors) Eur. Phys. J. C 77 (2017) 474 10.1140/epjc/s10052-017-5007-2
- Measurement of inclusive jet cross sections in pp and PbPb collisions at root s<sub>NN</sub>=2.76 TeV CMS Collaboration (2264 authors) Phys. Rev. C 96 (2017) 015202 10.1103/PhysRevC.96.015202
- Measurement of the jet mass in highly boosted t(t)over-bar events from pp collisions at root s=8TeV CMS Collaboration (2230 authors) Eur. Phys. J. C 77 (2017) 467 10.1140/epjc/s10052-017-5030-3
- Jet reconstruction and performance using particle flow with the ATLAS Detector ATLAS Collaboration (2856 authors) Eur. Phys. J. C 77 (2017) 466 10.1140/epjc/s10052-017-5031-2

- Measurement of double-differential cross sections for top quark pair production in pp collisions at  $\sqrt{s} = 8$  TeV and impact on parton distribution functions CMS collaboration (2231 authors) Eur.Phys.J. C77 (2017) 459 10.1140/epjc/s10052-017-4984-5
- Measurement of the mass difference between top quark and antiquark in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2203 authors) Phys. Lett. B 770 (2017) 50-71 10.1016/j.physletb.2017.04.028
- Search for heavy gauge  $W'$  bosons in events with an energetic lepton and large missing transverse momentum at  $\sqrt{s}=13$ TeV CMS Collaboration (2282 authors) Phys. Lett. B 770 (2017) 278-301 10.1016/j.physletb.2017.04.043
- Suppression of  $\gamma(1S)$ ,  $\gamma(2S)$ , and  $\gamma(3S)$  quarkonium states in PbPb collisions at  $\sqrt{S_{NN}}=2.76$ TeV CMS Collaboration (2273 authors) Phys. Lett. B 770 (2017) 357-379 10.1016/j.physletb.2017.04.031
- Measurement of the cross section for electroweak production of Z  $\gamma$  in association with two jets and constraints on anomalous quartic gauge couplings in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2260 authors) Phys. Lett. B 770 (2017) 380-402 10.1016/j.physletb.2017.04.071
- Measurement of the cross section for inclusive isolated-photon production in pp collisions at  $\sqrt{s}=13$  TeV using the ATLAS detector ATLAS Collaboration (2837 authors) Phys. Lett. B 770 (2017) 473-493 10.1016/j.physletb.2017.04.072
- Search for new phenomena in events with high jet multiplicity and low missing transverse momentum in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS collaboration (2261 authors) Phys.Lett. B770 (2017) 257-267 10.1016/j.physletb.2017.01.073
- Search for dark matter produced with an energetic jet or a hadronically decaying W or Z boson at  $\sqrt{s}=13$  TeV CMS collaboration (2231 authors) JHEP 1707 (2017) 014 10.1007/JHEP07(2017)014
- Search for new physics with dijet angular distributions in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS collaboration (2235 authors) JHEP 1707 (2017) 013 10.1007/JHEP07(2017)013
- A state-of-the-art calculation of atmospheric lepton fluxes Anatoli Fedynitch, Hans Dembinski, Ralph Engel, Thomas K. Gaisser, Felix Riehn, Todor Stanev PoS ICRC2017 (2018) 1019 10.22323/1.301.1019
- Search for  $t(\bar{t})$  resonances in highly boosted lepton plus jets and fully hadronic final states in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2197 authors) J. High Energy Phys. 7 (2017) 001 10.1007/JHEP07(2017)001
- Search for associated production of a Z boson with a single top quark and for  $tZ$  flavour-changing interactions in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2231 authors) J. High Energy Phys. 7 (2017) 003 10.1007/JHEP07(2017)003
- Study of the Hadron Structure Using the Polarised Drell-Yan Process at COMPASS Márcia Quaresma JPS Conf.Proc. 13 (2017) 020050 10.7566/JPSCP.13.020050
- The hadronic interaction model Sibyll – past, present and future Ralph Engel, Felix Riehn, Anatoli Fedynitch, Thomas K. Gaisser, Todor Stanev EPJ Web Conf. 145 (2017) 08001 10.1051/epjconf/201614508001
- Search for Resonances and New Physics Nuno T. Leonardo C16-07-18.8 (2017) 187-197 10.3204/DESY-PROC-2016-04/Leonardo
- Jets and charged hadrons in heavy-ion collisions with the ATLAS detector Helena Santos Acta Phys.Polon.Supp. 10 (2017) 1191-1196 10.5506/APhysPolBSupp.10.1191

- First Searches for Axions and Axionlike Particles with the LUX Experiment D.S. Akerib et al. Phys. Rev. Lett. 118, 261301 (2017) 10.1103/PhysRevLett.118.261301
- Measurement of forward-backward multiplicity correlations in lead-lead, proton-lead, and proton-proton collisions with the ATLAS detector M. Aaboud et al. (2858 authors) Phys. Rev. C 95 (2017) 064914 10.1103/PhysRevC.95.064914
- Measurements of integrated and differential cross sections for isolated photon pair production in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2857 authors) Phys. Rev. D 95 (2017) 112005 10.1103/PhysRevD.95.112005
- Measurement of multi-particle azimuthal correlations in pp, p plus Pb and low-multiplicity Pb plus Pb collisions with the ATLAS detector ATLAS Collaboration (2827 authors) Eur. Phys. J. C 77 (2017) 428 10.1140/epjc/s10052-017-4988-1
- beta-decay half-lives and beta-delayed neutron emission probabilities for several isotopes of Au, Hg, Tl, Pb, and Bi, beyond  $N=126$  R. Caballero-Folch, C. Domingo-Pardo, J. Agramunt, ..., D. Galaviz, et al. Phys. Rev. C 95, 064322 (2017) 10.1103/PhysRevC.95.064322
- Measurement of electroweak-induced production of W gamma with two jets in pp collisions at  $\sqrt{s}=8$ TeV and constraints on anomalous quartic gauge couplings CMS Collaboration (2266 authors) J. High Energy Phys. 6 (2017) 106 10.1007/JHEP06(2017)106
- Search for dark matter at  $\sqrt{s}=13$  TeV in final states containing an energetic photon and large missing transverse momentum with the ATLAS detector ATLAS Collaboration (2864 authors) Eur. Phys. J. C 77 (2017) 393 10.1140/epjc/s10052-017-4965-8
- Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory Pierre Auger Collaboration (402 authors) J. Cosmol. Astropart. Phys. 6 (2017) 026 10.1088/1475-7516/2017/06/026
- Multi-resolution anisotropy studies of ultrahigh-energy cosmic rays detected at the Pierre Auger Observatory Pierre Auger Collaboration (402 authors) J. Cosmol. Astropart. Phys. 6 (2017) 026 10.1088/1475-7516/2017/06/026
- Delta (1232) Dalitz decay in proton-proton collisions at  $T=1.25$  GeV measured with HADES at GSI HADES Collaboration Phys. Rev. C 95, 065205 10.1103/PhysRevC.95.065205
- Search for supersymmetry in events with photons and missing transverse energy in pp collisions at 13 TeV CMS Collaboration (2264 authors) Phys. Lett. B 769 (2017) 391-412 10.1016/j.physletb.2017.04.005
- Search for dijet resonances in proton-proton collisions at  $\sqrt{s} = 13$  TeV and constraints on dark matter and other models CMS collaboration (2233 authors) Phys.Lett. B772 (2017) 882-883 10.1016/j.physletb.2017.02.012, 10.1016/j.physletb.2017.09.029
- Measurement of jet fragmentation in Pb plus Pb and pp collisions at  $\sqrt{s(NN)}=2.76$  TeV with the ATLAS detector at the LHC ATLAS Collaboration (2859 authors) Eur. Phys. J. C 77 (2017) 379 10.1140/epjc/s10052-017-4915-5
- Precision measurement and interpretation of inclusive  $W^+$ ,  $W^-$  and  $Z/\gamma^*$  production cross sections with the ATLAS detector ATLAS Collaboration (2859 authors) Eur. Phys. J. C 77 (2017) 367 10.1140/epjc/s10052-017-4911-9
- The e-ASTROGAM mission. Exploring the extreme Universe with gamma rays in the MeV - GeV range De Angelis, A.; Tatischeff, V.; Tavani, M.; Oberlack, U.; Grenier, I.; Hanlon, L.; Walter, R.; Argan, A.; von Ballmoos, P.; Bulgarelli, A.; Donnarumma, I.; Hernanz, M.; Kuvvetli, I.; Pearce, M.; Zdziarski, A.; Aboudan, A.; Ajello, M.; Ambrosi, G.; Bernard, D.; Bernardini, E.; Bonvicini, V.; Brogna, A.; Branchesi, M.; Budtz-Jorgensen, C.; Bykov, A.;

Campana, R.; Cardillo, M.; Coppi, P.; De Martino, D.; Diehl, R.; Doro, M.; Fioretti, V.; Funk, S.; Ghisellini, G.; Grove, E.; Hamadache, C.; Silva R. *Exp. Astron.*, Volume 44, Issue 1, pp.25-82 10.1007/s10686-017-9533-6

- Measurements of the production cross section of a Z boson in association with jets in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2846 authors) *Eur. Phys. J. C* 77 (2017) 361 10.1140/epjc/s10052-017-4900-z
- Measurement of the top quark mass using single top quark events in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2223 authors) *Eur. Phys. J. C* 77 (2017) 354 10.1140/epjc/s10052-017-4912-8
- Reconstruction of primary vertices at the ATLAS experiment in Run 1 proton-proton collisions at the LHC ATLAS collaboration (2863 authors) *Eur.Phys.J. C* 77 (2017) 332 10.1140/epjc/s10052-017-4887-5
- Searches for pair production of third-generation squarks in  $\sqrt{s}=13$  TeV pp collisions CMS Collaboration (2241 authors) *Eur. Phys. J. C* 77 (2017) 327 10.1140/epjc/s10052-017-4853-2
- Search for narrow resonances in dilepton mass spectra in proton-proton collisions at  $\sqrt{s}=13$  TeV and combination with 8 TeV data CMS Collaboration (2263 authors) *Phys. Lett. B* 768 (2017) 57-80 10.1016/j.physletb.2017.02.010
- Multiplicity and rapidity dependence of strange hadron production in pp, pPb, and PbPb collisions at the LHC CMS Collaboration (2295 authors) *Phys. Lett. B* 768 (2017) 103-129 10.1016/j.physletb.2017.01.075
- Search for heavy resonances decaying into a vector boson and a Higgs boson in final states with charged leptons, neutrinos, and b quarks CMS Collaboration (2235 authors) *Phys. Lett. B* 768 (2017) 137-162 10.1016/j.physletb.2017.02.040
- Measurements of top-quark pair differential cross-sections in the e mu channel in pp collisions at  $\sqrt{s}=13$  TeV using the ATLAS detector ATLAS Collaboration (2856 authors) *Eur. Phys. J. C* 77 (2017) 292 10.1140/epjc/s10052-017-4821-x
- A search for new phenomena in pp collisions at  $\sqrt{s}=13$ TeV in final states with missing transverse momentum and at least one jet using the  $\alpha(T)$  variable CMS Collaboration (2285 authors) *Eur. Phys. J. C* 77 (2017) 294 10.1140/epjc/s10052-017-4787-8
- Search for single production of vector-like quarks decaying to a Z boson and a top or a bottom quark in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS collaboration (2230 authors) *J. High Energy Phys.* 5 (2017) 029 10.1007/JHEP05(2017)029
- Observation of  $\gamma(1S)$  pair production in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2277 authors) *J. High Energy Phys.* 5 (2017) 013 10.1007/JHEP05(2017)013
- Measurement of differential cross sections for top quark pair production using the lepton plus jets final state in proton-proton collisions at 13 TeV CMS Collaboration (2276 authors) *Phys. Rev. D* 95 (2017) 092001 10.1103/PhysRevD.95.092001
- High-E-T isolated-photon plus jets production in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2853 authors) *Nucl. Phys. B* 918 (2017) 257-316 10.1016/j.nuclphysb.2017.03.006
- Performance of the ATLAS Transition Radiation Tracker in Run 1 of the LHC: tracker properties M. Aaboud et al. (2840 authors) *J. Instrum.* 12 (2017) P05002 10.1088/1748-0221/12/05/P05002
- The active muon shield in the SHiP experiment SHiP Collaboration (230 authors) *J. Instrum.* 12 (2017) P05011 10.1088/1748-0221/12/05/P05011

- Measurement of prompt and nonprompt  $J/\psi$  production in pp and pPb collisions at  $\sqrt{s_{NN}}=5.02$  TeV CMS Collaboration (2236 authors) Eur. Phys. J. C 77 (2017) 269 10.1140/epjc/s10052-017-4828-3
- Search for electroweak production of a vector-like quark decaying to a top quark and a Higgs boson using boosted topologies in fully hadronic final states CMS Collaboration (2246 authors) J. High Energy Phys. 4 (2017) 136 10.1007/JHEP04(2017)136
- Mechanical stability of the CMS strip tracker measured with a laser alignment system CMS collaboration (2231 authors) JINST 12 (2017) P04023 10.1088/1748-0221/12/04/P04023
- Probing the  $W$   $t\bar{b}$  vertex structure in  $t$ -channel single-top-quark production and decay in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2852 authors) J. High Energy Phys. 4 (2017) 124 10.1007/JHEP04(2017)124
- Relative Modification of Prompt  $\Upsilon(2S)$  and  $J/\Upsilon$  Yields from pp to PbPb Collisions at  $\sqrt{s_{NN}}=5.02$  TeV CMS collaboration (2274 authors) Phys.Rev.Lett. 118 (2017) 162301 10.1103/PhysRevLett.118.162301
- Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory Pierre Auger collaboration (399 authors) JCAP 1803 (2018) E02 10.1088/1475-7516/2017/04/038, 10.1088/1475-7516/2018/03/E02
- Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory Pierre Auger collaboration (399 authors) JCAP 1803 (2018) E02 10.1088/1475-7516/2017/04/038, 10.1088/1475-7516/2018/03/E02
- Combined fit of spectrum and composition data as measured by the Pierre Auger Observatory Pierre Auger collaboration (399 authors) JCAP 1803 (2018) E02 10.1088/1475-7516/2017/04/038, 10.1088/1475-7516/2018/03/E02
- Suppression and azimuthal anisotropy of prompt and nonprompt  $J/\psi$  production in PbPb collisions at  $\sqrt{s_{NN}}=2.76$  TeV CMS Collaboration (2267 authors) Eur. Phys. J. C 77 (2017) 252 10.1140/epjc/s10052-017-4781-1
- Measurement of the inclusive cross-sections of single top-quark and top-antiquark  $t$ -channel production in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS collaboration (2851 authors) J. High Energy Phys. 4 (2017) 086 10.1007/JHEP04(2017)086
- Performance of algorithms that reconstruct missing transverse momentum in  $\sqrt{s}=8$  TeV proton-proton collisions in the ATLAS detector ATLAS Collaboration (2824 authors) Eur. Phys. J. C 77 (2017) 241 10.1140/epjc/s10052-017-4780-2
- Measurement of the  $WZ$  production cross section in pp collisions at  $\sqrt{s}=7$  and 8 TeV and search for anomalous triple gauge couplings at  $\sqrt{s}=8$  TeV CMS Collaboration (2268 authors) Eur. Phys. J. C 77 (2017) 236 10.1140/epjc/s10052-017-4730-z
- Proposed low-energy absolute calibration of nuclear recoils in a dual-phase noble element TPC using D-D neutron scattering kinematics J.R. Verbus, C.A. Rhyne, D.C. Malling, M. Genecov, S. Ghosh, A.G. Moskowitz, S. Chan, J.J. Chapman, L. de Viveiros, C.H. Faham, S. Fiorucci, D.Q. Huang, M. Pangilinan, W.C. Taylor, R.J. Gaitskell Nucl.Instrum.Meth. A851 (2017) 68-81 10.1016/j.nima.2017.01.053
- Search for high-mass diphoton resonances in proton-proton collisions at 13 TeV and combination with 8 TeV search CMS Collaboration (2278 authors) Phys. Lett. B 767 (2017) 147-170 10.1016/j.physletb.2017.01.027
- Search for top squark pair production in compressed-mass-spectrum scenarios in proton-proton collisions at  $\sqrt{s}=8$  TeV using the  $\alpha(T)$  variable CMS Collaboration (2296 authors) Phys. Lett. B 767 (2017) 403-430 10.1016/j.physletb.2017.02.007

- Measurement of jet activity produced in top-quark events with an electron, a muon and two b-tagged jets in the final state in pp collisions  $\sqrt{s}=13\text{TeV}$  with the ATLAS detector Collaboration, A (2847 authors) Eur. Phys. J. C 77 (2017) 220 10.1140/epjc/s10052-017-4766-0
- Charged-particle nuclear modification factors in PbPb and pPb collisions at  $\sqrt{s(NN)}=5.02\text{ TeV}$  CMS Collaboration (2271 authors) J. High Energy Phys. 4 (2017) 039 10.1007/JHEP04(2017)039
- Measurement of the  $t(\bar{t})$  production cross section in the tau plus jets final state in pp collisions at  $\sqrt{s}=8\text{ TeV}$  using the ATLAS detector ATLAS Collaboration (2854 authors) Phys. Rev. D 95 (2017) 072003 10.1103/PhysRevD.95.072003
- Measurements of differential production cross sections for a Z boson in association with jets in pp collisions at  $\sqrt{s}=8\text{ TeV}$  CMS Collaboration (2257 authors) J. High Energy Phys. 4 (2017) 022 10.1007/JHEP04(2017)022
- Search for electroweak production of charginos in final states with two T leptons in pp collisions at  $\sqrt{s}=8\text{ TeV}$  CMS Collaboration (2263 authors) J. High Energy Phys. 4 (2017) 018 10.1007/JHEP04(2017)018
- Search for photons with energies above 10(18) eV using the hybrid detector of the Pierre Auger Observatory Pierre Auger Collaboration (399 authors) J. Cosmol. Astropart. Phys. 4 (2017) 009 10.1088/1475-7516/2017/04/009
- Search for photons with energies above 10(18) eV using the hybrid detector of the Pierre Auger Observatory Pierre Auger Collaboration (399 authors) J. Cosmol. Astropart. Phys. 4 (2017) 009 10.1088/1475-7516/2017/04/009
- Search for massive resonances decaying into WW, WZ or ZZ bosons in proton-proton collisions at  $\sqrt{s} = 13\text{ TeV}$  CMS collaboration (2239 authors) JHEP 1703 (2017) 162 10.1007/JHEP03(2017)162
- Measurement and QCD analysis of double-differential inclusive jet cross sections in pp collisions at  $\sqrt{s}=8\text{ TeV}$  and cross section ratios to 2.76 and 7 TeV CMS collaboration (2257 authors) J. High Energy Phys. 3 (2017) 156 10.1007/JHEP03(2017)156
- Measurement of charged-particle distributions sensitive to the underlying event in  $\sqrt{s}=13\text{ TeV}$  proton-proton collisions with the ATLAS detector at the LHC ATLAS collaboration (2839 authors) JHEP 1703 (2017) 157 10.1007/JHEP03(2017)157
- Electron efficiency measurements with the ATLAS detector using 2012 LHC proton-proton collision data ATLAS Collaboration (2849 authors) Eur. Phys. J. C 77 (2017) 195 10.1140/epjc/s10052-017-4756-2
- Observation of Charge-Dependent Azimuthal Correlations in p-Pb Collisions and Its Implication for the Search for the Chiral Magnetic Effect CMS Collaboration (2272 authors) Phys. Rev. Lett. 118 (2017) 122301 10.1103/PhysRevLett.118.122301
- Measurement of the  $t(\bar{t})$  production cross section using events in the e mu final state in pp collisions at  $\sqrt{s}=13\text{ TeV}$  CMS Collaboration (2277 authors) Eur. Phys. J. C 77 (2017) 172 10.1140/epjc/s10052-017-4718-8
- Search for CP violation in  $t(\bar{t})$  production and decay in proton-proton collisions at  $\sqrt{s}=8\text{ TeV}$  CMS Collaboration (2274 authors) J. High Energy Phys. 3 (2017) 101 10.1007/JHEP03(2017)101
- Search for heavy neutrinos or third-generation leptoquarks in final states with two hadronically decaying tau leptons and two jets in proton-proton collisions at  $\sqrt{s}=13\text{ TeV}$  CMS Collaboration (2278 authors) J. High Energy Phys. 3 (2017) 077

10.1007/JHEP03(2017)077

- Measurements of differential cross sections for associated production of a W boson and jets in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2262 authors) Phys. Rev. D 95 (2017) 052002 10.1103/PhysRevD.95.052002
- A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory A. Aab et al. (399 authors) Astrophys. J. Lett. 837 (2017) L25 10.3847/2041-8213/aa61a5
- A Targeted Search for Point Sources of EeV Photons with the Pierre Auger Observatory A. Aab et al. (399 authors) Astrophys. J. Lett. 837 (2017) L25 10.3847/2041-8213/aa61a5
- Search for dark matter and unparticles in events with a Z boson and missing transverse momentum in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2244 authors) J. High Energy Phys. 3 (2017) 061 10.1007/JHEP03(2017)061
- Measurement of the WZ production cross section in pp collisions at  $\sqrt{s}=13$  TeV CMS collaboration (2268 authors) Phys.Lett. B766 (2017) 268-290 10.1016/j.physletb.2017.01.011
- Measurement of the transverse momentum spectrum of the Higgs boson produced in pp collisions at  $\sqrt{s}=8$  TeV using  $H \rightarrow WW$  decays CMS collaboration (2259 authors) JHEP 1703 (2017) 032 10.1007/JHEP03(2017)032
- Search for new phenomena in events containing a same-flavour opposite-sign dilepton pair, jets, and large missing transverse momentum in  $\sqrt{s}=13$  TeV pp collisions with the ATLAS detector ATLAS Collaboration (2842 authors) Eur. Phys. J. C 77 (2017) 144 10.1140/epjc/s10052-017-4700-5
- Muon counting using silicon photomultipliers in the AMIGA detector of the Pierre Auger observatory Pierre Auger collaboration (422 authors) JINST 12 (2017) P03002 10.1088/1748-0221/12/03/P03002
- Search for triboson ( $WWW$   $-/+$ )- $W$ - $+/-$ - $W$ - $+/-$  production in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2862 authors) Eur. Phys. J. C 77 (2017) 141 10.1140/epjc/s10052-017-4692-1
- Searches for invisible decays of the Higgs boson in pp collisions at  $\sqrt{s}=7, 8,$  and  $13$  TeV CMS collaboration (2273 authors) JHEP 1702 (2017) 135 10.1007/JHEP02(2017)135
- Measurements of top-quark pair to  $Z$ -boson cross-section ratios at  $\sqrt{s}=13, 8, 7$  TeV with the ATLAS detector ATLAS collaboration (2834 authors) JHEP 1702 (2017) 117 10.1007/JHEP02(2017)117
- Measurement of the transverse momentum spectra of weak vector bosons produced in proton-proton collisions at  $\sqrt{s}=8$ TeV Burns, D / CMS Collaboration (2299 authors) J. High Energy Phys. 2 (2017) 096 10.1007/JHEP02(2017)096
- Search for top quark decays via Higgs-boson-mediated flavor-changing neutral currents in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2257 authors) J. High Energy Phys. 2 (2017) 079 10.1007/JHEP02(2017)079
- Measurements of charge and CP asymmetries in b-hadron decays using top-quark events collected by the ATLAS detector in pp collisions at  $\sqrt{s}=8$  TeV ATLAS Collaboration (2856 authors) J. High Energy Phys. 2 (2017) 071 10.1007/JHEP02(2017)071
- Measurement of the production cross section of a W boson in association with two b jets in pp collisions at  $\sqrt{s}=8$ TeV CMS Collaboration (2263 authors) Eur. Phys. J. C 77 (2017) 92 10.1140/epjc/s10052-016-4573-z
- Search for new resonances decaying to a W or Z boson and a Higgs boson in the  $l^{(+)}l^{(-)}b\bar{b}$ ,  $l\nu b\bar{b}$ , and  $\nu\nu\bar{b}\bar{b}$  channels with pp

- collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2855 authors) Phys. Lett. B 765 (2017) 32-52 10.1016/j.physletb.2016.11.045
- Measurement of W boson angular distributions in events with high transverse momentum jets at  $\sqrt{s}=8$  TeV using the ATLAS detector ATLAS Collaboration (2857 authors) Phys. Lett. B 765 (2017) 132-153 10.1016/j.physletb.2016.12.005
  - Evidence for collectivity in pp collisions at the LHC CMS Collaboration (2259 authors) Phys. Lett. B 765 (2017) 193-220 10.1016/j.physletb.2016.12.009
  - Search for dark matter in association with a Higgs boson decaying to  $b\bar{b}$ -quarks in  $pp$  collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS collaboration (2863 authors) Phys.Lett. B765 (2017) 11-31 10.1016/j.physletb.2016.11.035
  - Search for heavy resonances decaying to tau lepton pairs in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS collaboration (2282 authors) JHEP 1702 (2017) 048 10.1007/JHEP02(2017)048
  - Search for anomalous electroweak production of WW/WZ in association with a high-mass dijet system in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2849 authors) Phys. Rev. D 95 (2017) 032001 10.1103/PhysRevD.95.032001
  - Measurement of the prompt  $J/\psi$  pair production cross-section in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS Collaboration (2843 authors) Eur. Phys. J. C 77 (2017) 76 10.1140/epjc/s10052-017-4644-9
  - Search for anomalous  $Wtb$  couplings and flavour-changing neutral currents in t-channel single top quark production in pp collisions at  $\sqrt{s}=7$  and 8 TeV CMS Collaboration (2259 authors) J. High Energy Phys. 2 (2017) 028 10.1007/JHEP02(2017)028
  - Impact of Atmospheric Effects on the Energy Reconstruction of Air Showers Observed by the Surface Detectors of the Pierre Auger Observatory Pierre Auger collaboration (410 authors) JINST 12 (2017) P02006 10.1088/1748-0221/12/02/P02006
  - Search for lepton-flavour-violating decays of the Higgs and Z bosons with the ATLAS detector ATLAS Collaboration (2846 authors) Eur. Phys. J. C 77 (2017) 70 10.1140/epjc/s10052-017-4624-0
  - Search for the Standard Model Higgs boson decaying to b-quark pairs with the ATLAS detector at the LHC Patricia Conde Muno PoS ICHEP2016 (2017) 392 10.22323/1.282.0392
  - First inverse-kinematics fission measurements in a gaseous active target C. Rodriguez-Tajes, F. Farget, L. Acosta, H. Alvarez-Pol, M. Babo, F. Boulay, M. Caamano, S. Damoy, B. Fernandez-Dominguez, D. Galaviz, G. F. Grinyer, J. Grinyer, M. N. Harakeh, P. Konczykowski, I. Martel, J. Pancin, G. Randisi, R. Renzi, T. Roger, A. M. Sanchez-Benitez, P. Teubig, M. Vandebrouck Nucl. Phys. A 958, 246 (2017) 10.1016/j.nuclphysa.2016.12.003
  - Jet energy scale and resolution in the CMS experiment in pp collisions at 8 TeV CMS Collaboration (2305 authors) J. Instrum. 12 (2017) P02014 10.1088/1748-0221/12/02/P02014
  - Determination of the neutron-capture rate of C-17 for r-process nucleosynthesis M. Heine, S. Typel, M. R. Wu, et al. (R3B Collaboration) Phys. Rev. C 95, 014613 (2017) 10.1103/PhysRevC.95.014613
  - Search for supersymmetry in events with one lepton and multiple jets in proton-proton collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2265 authors) Phys. Rev. D 95 (2017) 012011 10.1103/PhysRevD.95.012011

- Inclusive Lambda production in proton-proton collisions at 3.5 GeV HADES Collaboration (109 authors) Phys. Rev. C 95 (2017) 015207 10.1103/PhysRevC.95.015207
- Measurements of  $\psi(2S)$  and  $X(3872) \rightarrow J/\psi \pi^+ \pi^-$  production in pp collisions at  $\sqrt{s}=8$  TeV with the ATLAS detector ATLAS collaboration (2860 authors) J. High Energy Phys. 1 (2017) 117 10.1007/JHEP01(2017)117
- Search for R-parity violating supersymmetry with displaced vertices in proton-proton collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2269 authors) Phys. Rev. D 95 (2017) 012009 10.1103/PhysRevD.95.012009
- Measurement of the ZZ production cross section in proton-proton collisions at  $\sqrt{s}=8$  TeV using the ZZ  $\rightarrow l^{(-)} l^{(+)} l'^{(-)} l'^{(+)}$  and ZZ  $\rightarrow l^{(-)} l^{(+)} \nu(\nu)\overline{\nu}$  decay channels with the ATLAS detector ATLAS Collaboration (2854 authors) J. High Energy Phys. 1 (2017) 099 10.1007/JHEP01(2017)099
- Measurement of the  $t\overline{t}Z$  and  $t\overline{t}W$  production cross sections in multilepton final states using 3.2 fb<sup>-1</sup> of pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2861 authors) Eur. Phys. J. C 77 (2017) 40 10.1140/epjc/s10052-016-4574-y
- Signal yields, energy resolution, and recombination fluctuations in liquid xenon D.S. Akerib et al. Physical Review D 95, 012008 10.1103/PhysRevD.95.012008
- Search for high-mass Z gamma resonances in  $e^+e^-\gamma$  and  $\mu^+\mu^-\gamma$  final states in proton-proton collisions at  $\sqrt{s}=8$  and 13 TeV CMS Collaboration (2269 authors) J. High Energy Phys. 1 (2017) 076 10.1007/JHEP01(2017)076
- Search for Dark Matter and Supersymmetry with a Compressed Mass Spectrum in the Vector Boson Fusion Topology in Proton-Proton Collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2261 authors) Phys. Rev. Lett. 118 (2017) 021802 10.1103/PhysRevLett.118.021802
- Search for heavy resonances decaying to a Z boson and a photon in pp collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector ATLAS Collaboration (2863 authors) Phys. Lett. B 764 (2017) 11-30 10.1016/j.physletb.2016.11.005
- Observation of the decay  $B^+ \rightarrow \psi(2S)\phi(1020)K^+$  in pp collisions at  $\sqrt{s}=8$  TeV CMS Collaboration (2267 authors) Phys. Lett. B 764 (2017) 66-86 10.1016/j.physletb.2016.11.001
- Measurements of the  $t\overline{t}$  production cross section in lepton plus jets final states in pp collisions at 8 and ratio of 8 to 7 cross sections CMS Collaboration (2309 authors) Eur. Phys. J. C 77 (2017) 1-27 10.1140/epjc/s10052-016-4504-z
- Inclusive search for supersymmetry using razor variables in pp collisions at  $\sqrt{s}=13$  TeV CMS Collaboration (2263 authors) Phys. Rev. D 95 (2017) 012003 10.1103/PhysRevD.95.012003
- Background rejection in NEXT using deep neural networks The NEXT Collaboration JOURNAL OF INSTRUMENTATION Volume: 12 Article Number: T01004 DOI: 10.1088/1748-0221/12/01/T01004 Published: JAN 2017 10.1088/1748-0221/12/01/T01004
- The CMS trigger system CMS Collaboration (2311 authors) J. Instrum. 12 (2017) P010120 10.1088/1748-0221/12/01/P01020

Thesis / Dissertation (\*)

# Phd Thesis

(\*) Ended in 2017

- Development of a new PET detector for pancreatic and prostate cancer detection [link](#)
- Spin Structure of the Proton at Low x and Low Q<sup>2</sup> from the COMPASS Experiment at CERN [link](#)
- Search for the Higgs boson at ATLAS/LHC in WH associated production and decay to b quark pairs using MVA methods [link](#)
- Demonstration of a time-of-flight device for particle therapy monitoring [link](#)
- Study of ground state properties of the halo nucleus <sup>11</sup>Be via scattering on a proton target at quasi-free scattering conditions performed at the R3B setup at GSI [link](#)
- Search for the Higgs boson at ATLAS/LHC, in associated production with a Z boson [link](#)
- Search for flavour-changing neutral current top-quark decays with the ATLAS detector [link](#)
- Measurement of the longitudinal profile of cosmic ray air-showers at the Pierre Auger Observatory [link](#)

# Master Thesis

- Response of a water-Cherenkov detector to inclined muons at the Pierre Auger Observatory [link](#)
- Probing hadronic interactions at ultra-high energies [link](#)
- Development and Radiation Hardness Assessment of MR sensors for Space Applications [link](#)
- Análise de Biometais em Tecido Cerebral por Microscopia Eletrónica Analítica [link](#)
- Optical calibration of the SNO+ experiment and sensitivity studies for neutrino-less double beta decay [link](#)
- Probing the CP nature of the Higgs couplings in ttH events at the LHC [link](#)
- Development of a control board for the HV distribution system [link](#)
- Optimization of clustering algorithms for the ATLAS Experiment at the LHC (CERN) [link](#)
- Detector Control System of the HV distribution boards for the ATLAS Tile Calorimeter Phase II Upgrade [link](#)
- Aprendizagem profunda: estudo e aplicações [link](#)

# Conference Paper

- Quarkonium polarization in pp collisions with CMS J.Seixas, CMS Collaboration QCD@LHC 2016

- A data-driven interpretation of heavy quarkonium measurements at the LHC P.Faccioli QCD@LHC 2016
- The SNO+ experiment physics goals and background mitigations G. Prior (on behalf of the SNO+ collaboration) NuPhys2016 Conference Proceedings – SLAC eConf C16-12-12.1 (2017)
- Multi-Threaded Algorithms for GPGPU in the ATLAS High Level Trigger P. Conde Muíño, on behalf of the ATLAS Collaboration J.Phys.Conf.Ser. 898 (2017) no.3, 032003 10.1088/1742-6596/898/3/032003
- Computing shifts to monitor ATLAS distributed computing infrastructure and operations C. Adam, D. Barberis, S. Crépe-Renaudin, K. De, F. Fassi, A. Stradling, M. Svatos, A. Vartapetian and H. Wolters IOP Conf. Series: Journal of Physics: Conf. Series 1829384(526071879)092004 10.1088/1742-6596/898/9/092004
- Latest Results on Top Quark Properties: Deciphering the DNA of the heaviest quark M. Gallinaro (for the CMS Collaboration) arXiv:1711.10425
- Experiences on Object Tracking Using a Many-Core Embedded System Laercio Minozzo, José Rufino, José Lima Proceedings of the 14th International Conference on Applied Computing (AC 2017), pp. 195-204, IADIS. 18-20 October, 2017. Vilamoura, Portugal
- Benchmarking of Bare Metal Virtualization Platforms on Commodity Hardware Duarte Pousa, José Rufino Proceedings of the 14th International Conference on Applied Computing (AC 2017), pp. 205- 212, IADIS. 18-20 October, 2017. Vilamoura, Portugal. (best paper award)
- Recent progress on the understanding of the medium-induced jet evolution and energy loss in pQCD Liliana Apolinário EPJ Web Conf. 137 (2017) 07002 10.1051/epjconf/201713707002
- Recent progress on the understanding of the medium-induced jet evolution and energy loss in pQCD Liliana Apolinário EPJ Web Conf. 137 (2017) 07002 10.1051/epjconf/201713707002
- Detector Control System for the AFP detector in ATLAS experiment at CERN E. Banaś, D. Caforio, S. Czekierda, Z. Hajduk, J. Olszowska, L. Seabra and P. Sícho J.Phys.Conf.Ser. 898 (2017) no.3, 032022 10.1088/1742-6596/898/3/032022
- Dosimetry of kV Cone Beam CT with scintillation dosimeter Luis Peralta, Joana Machado, Esmeralda Poli PRS2017- Proteção Radiológica na Saúde, 27 a 29 de Setembro, IST, Lisboa
- Calibration of the SNO+ experiment J. Maneira, E. Falk, E. Leming, S. Peeters on behalf of the SNO+ Collaboration J. Phys.: Conf. Ser. 888 012247 10.1088/1742-6596/888/1/012247
- LATTES: a novel detector concept for a gamma-ray experiment in the Southern hemisphere R. Conceição, P. Assis, U. Barres de Almeida, A. Blanco, B. D’Ettore Piazzoli, A. De Angelis, M. Doro, P. Fonte, L. Lopes, G. Matthiae, M. Pimenta, R. Shellard, B. Tomé PoS ICRC2017 784 - Proceedings of the 35th International Cosmic Ray Conference (ICRC2017) 10.22323/1.301.0784
- Autonomous RPCs for a Cosmic Ray ground array Pedro Assis, Alberto Blanco, Nuno Carolino, Ruben Conceição, Orlando Cunha, Carola Dobrigkeit, Miguel Ferreira, Paulo Fonte, Luis Lopes, Ricardo Luz, Victor Barbosa Martins, Luis Mendes, Américo Pereira, Mário Pimenta, Raul Sarmento, Ronald Shellard, Vitor de Souza, Bernardo Tomé PoS ICRC2017 (2018) 379 10.22323/1.301.0379
- Autonomous RPCs for a Cosmic Ray ground array Pedro Assis, Alberto Blanco, Nuno Carolino, Ruben Conceição, Orlando Cunha, Carola Dobrigkeit, Miguel Ferreira, Paulo

Fonte, Luis Lopes, Ricardo Luz, Victor Barbosa Martins, Luis Mendes, Américo Pereira, Mário Pimenta, Raul Sarmento, Ronald Shellard, Vitor de Souza, Bernardo Tomé PoS ICRC2017 (2018) 379 10.22323/1.301.0379

- Autonomous RPCs for a Cosmic Ray ground array Pedro Assis, Alberto Blanco, Nuno Carolino, Ruben Conceição, Orlando Cunha, Carola Dobrigkeit, Miguel Ferreira, Paulo Fonte, Luis Lopes, Ricardo Luz, Victor Barbosa Martins, Luis Mendes, Américo Pereira, Mário Pimenta, Raul Sarmento, Ronald Shellard, Vitor de Souza, Bernardo Tomé PoS ICRC2017 (2018) 379 10.22323/1.301.0379
- Analysis of radiation from radon on bioactive compounds present on Nasturtium officinale Leaves M. Inácio, S. Soares, E. Amaral 13th Workshop on European Collaboration for Higher education and Research in Radiological and Nuclear Engineering and Radiation Protection, Covilhã - Portugal 24-29 May 2017
- From Particle Physics to Civil Engineering for a better health P. Almeida, S. Soares, M. Inácio 13th Workshop on European Collaboration for Higher education and Research in Radiological and Nuclear Engineering and Radiation Protection, Covilhã - Portugal 24-29 May 2017
- Measurement of annual dose due to background gamma radiation Luis Peralta 13th Workshop on European Collaboration for Higher Education and Research in Radiological and Nuclear Engineering and radiation protection, Univ. Beira Interior, Covilhã, 22-25 May 2017
- Scintillating fiber optic dosimeters for breast and prostate brachytherapy L.M. Moutinho, I.F. Castro, H. Freitas, J. Melo, P. Silva, A. Gonçalves, L. Peralta, P.J. Rachinhas, P.C.P.S. Simões, S. Pinto, A. Pereira, J.A.M. Santos, M. Costa, and J.F.C.A. Veloso Optical Fibers and Sensors for Medical Diagnostics and Treatment Applications XVII, Proc. of SPIE Vol. 10058, 100580C, 2017 10.1117/12.2254397
- Upgrades for the Precision Proton Spectrometer at the LHC: Precision Timing and Tracking Detectors M. Gallinaro (for the CMS and Totem Collaborations) AIP Conf.Proc. 1819 (2017) no.1, 040021 10.1063/1.4977151
- Sub-jet structure as a discriminating quenching probe Xiaoming Zhang, Liliana Apolinário, José Guilherme Milhano, Mateusz Płoskoń Nucl.Phys. A956 (2016) 597-600 10.1016/j.nuclphysa.2016.02.028
- Sub-jet structure as a discriminating quenching probe Xiaoming Zhang, Liliana Apolinário, José Guilherme Milhano, Mateusz Płoskoń Nucl.Phys. A956 (2016) 597-600 10.1016/j.nuclphysa.2016.02.028
- A Comprehensive Analysis of Jet Quenching via a Hybrid Strong/Weak Coupling Model for Jet-Medium Interactions Jorge Casado-Solana, Doga Can Gulhan, José Guilherme Milhano, Daniel Pablos, Krishna Rajagopal Nucl.Phys. A956 (2016) 613-616 10.1016/j.nuclphysa.2016.01.072
- A Comprehensive Analysis of Jet Quenching via a Hybrid Strong/Weak Coupling Model for Jet-Medium Interactions Jorge Casado-Solana, Doga Can Gulhan, José Guilherme Milhano, Daniel Pablos, Krishna Rajagopal Nucl.Phys. A956 (2016) 613-616 10.1016/j.nuclphysa.2016.01.072
- OPENCoastS.pt - SERVIÇO DE PREVISÃO EM TEMPO REAL A PEDIDO PARA A CIRCULAÇÃO E AGITAÇÃO MARÍTIMA NA COSTA PORTUGUESA Joana Teixeira, João Rogeiro, Anabela Oliveira, André B. Fortunato, Alberto Azevedo, Marta Rodrigues, Jorge Gomes, Mário David Joana Teixeira, João Rogeiro, Anabela Oliveira, André B. Fortunato, Alberto Azevedo,

OPENCoastS.pt - SERVIÇO DE PREVISÃO EM TEMPO REAL A PEDIDO PARA A CIRCULAÇÃO  
E AGITAÇÃO MARÍTIMA NA COSTA PORTUGUESA, Jornadas Portuguesas de Engenharia  
Costeira e Portuária, LNEC 2017

# Conference Poster

---

Revision #39

Created 31 October 2019 14:26:19 by João Pina

Updated 23 January 2026 12:02:59 by João Pina