

Publications P2IO 2017 :

- A. Irlles, "**Latest developments on the highly granular Silicon-Tungsten Electromagnetic Calorimeter technological prototype for the International Large Detector**", *2017 IEEE NUCLEAR SCIENCE SYMPOSIUM AND MEDICAL IMAGING CONFERENCE (NSS/MIC)*
- M. Aoki and T. Toma, "**Implications of two-component dark matter induced by forbidden channels and thermal freeze-out**", *JCAP01(2017)042*, <https://doi.org/10.1088/1475-7516/2017/01/042>
- R. Boussarie, B. Pire et al., "**Accessing Generalized Parton Distributions in Exclusive Photoproduction of a gamma rho Pair with a Large Invariant Mass**", *DIFFRACTION 2016: INTERNATIONAL WORKSHOP ON DIFFRACTION IN HIGH-ENERGY PHYSICS*, <https://doi.org/10.1063/1.4977164>
- D. Marchand (PRAE collaboration), "A new platform for research and applications with electrons: the PRAE project", *EPJ Web of Conferences* 138, 01012 (2017), <https://doi.org/10.1051/epjconf/201713801012>
- T. Strebler, "**The role of the CMS electron and photon trigger in the study of the Higgs boson and high mass searches**", *IOP Conf. Series: Journal of Physics: Conf. Series* 928 (2017) 012007, <https://doi.org/10.1088/1742-6596/928/1/012007>
- T. Konstantinopoulos et al., "**Lifetime measurements in ^{100}Ru** ", *Phys. Rev. C* 95, 014309 – Published 10 January 2017, <https://doi.org/10.1103/PhysRevC.95.014309>
- T. Delubac, A. Raichoor, J. Comparat et al., "**The SDSS-IV eBOSS: emission line galaxy catalogues at $z \approx 0.8$ and study of systematic errors in the angular clustering**", *Monthly Notices of the Royal Astronomical Society, Volume 465, Issue 2, February 2017, Pages 1831–1846*, <https://doi.org/10.1093/mnras/stw2741>
- V. Kubytskyi, V. Krylov, P. Bambade et al., "**Study of low multiplicity electron source LEETECH with diamond detector**", *2017 JINST 12 P02011*, <https://doi.org/10.1088/1748-0221/12/02/P02011>
- R. Boussarie, B. Pire, L. Szymanowski, L. et al., "**Exclusive photoproduction of a γ ρ pair with a large invariant mass**", *J. High Energ. Phys.* 2017, 54 (2017), [https://doi.org/10.1007/JHEP02\(2017\)054](https://doi.org/10.1007/JHEP02(2017)054)
- N. Dinu, A. Nagai, A. Para, "**Breakdown voltage and triggering probability of SiPM from IV curves at different temperatures**", *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, Vol. 845, 11 February 2017, Pages 64-68, <https://doi.org/10.1016/j.nima.2016.05.110>
- B. Pire, K. Semenov-Tian-Shansky and L. Szymanowski, "**Backward charmonium production in πN collisions**", *Physical Review D*, Vol. 95, 2017, <https://doi.org/10.1103/PhysRevD.95.034021>

- B. Pire, K. Semenov-Tian-Shansky & L. Szymanowski, "**Baryon-to-Meson Transition Distribution Amplitudes: Formalism and Models**", *Few-Body Syst* 58, 74 (2017), <https://doi.org/10.1007/s00601-017-1244-z>
- L. Cadamuro, "**The CMS Level-1 trigger system for LHC Run II**", *2017 JINST 12 C03021*, <https://doi.org/10.1088/1748-0221/12/03/C03021>
- C.Lantz, R.Brunetto et al., "**Ion irradiation of carbonaceous chondrites: A new view of space weathering on primitive asteroids**", *Icarus*, Vol. 285, 15 March 2017, Pages 43-57, <https://doi.org/10.1016/j.icarus.2016.12.019>
- D. Ralet et al. (PreSPEC and AGATA Collaborations), "**Lifetime measurement of neutron-rich even-even molybdenum isotopes**", *PHYSICAL REVIEW C* 95, 034320 (2017), <https://doi.org/10.1103/PhysRevC.95.034320>
- P. Mollière et al., "**Observing transiting planets with JWST Prime targets and their synthetic spectral observations**", *A&A* 600, A10 (2017), <https://doi.org/10.1051/0004-6361/201629800>
- J. Charles, S. Descotes-Genon, V. Niess. et al., "**Modeling theoretical uncertainties in phenomenological analyses for particle physics**", *Eur. Phys. J. C* 77, 214 (2017), <https://doi.org/10.1140/epjc/s10052-017-4767-z>
- J. Dudouet et al., " **$^{96}_{36}\text{Kr}_{60}$ –Low-Z Boundary of the Island of Deformation at N=60**", *Phys. Rev. Lett.* 118, 162501 – Published 17 April 2017, <https://doi.org/10.1103/PhysRevLett.118.162501>
- D Ralet, G Georgiev et al., "**Toward lifetime and g factor measurements of short-lived states in the vicinity of ^{208}Pb** ", *2017 Phys. Scr.* 92 054004, <https://doi.org/10.1088/1402-4896/aa6942>
- E.Armengaud, Q.Arnaud, C.Augier et al., "**Measurement of the cosmogenic activation of germanium detectors in EDELWEISS-III**", *Astroparticle Physics* Vol. 91, May 2017, Pages 51-64, <https://doi.org/10.1016/j.astropartphys.2017.03.006>
- Rong-Gen Cai, N. Tamanini and T. Yang, "**Reconstructing the dark sector interaction with LISA**", *JCAP05(2017)031*, <https://doi.org/10.1088/1475-7516/2017/05/031>
- J. Varela, S. Brun, B. Dubrulle, and C. Nore, "**Effects of turbulence, resistivity and boundary conditions on helicoidal flow collimation: Consequences for the Von-Kármán-Sodium dynamo experiment**", *Physics of Plasmas* 24, 053518 (2017), <https://doi.org/10.1063/1.4983313>
- E. Babichev, C. Charmousis, M. Hassaine, "**Black holes and solitons in an extended Proca theory**", *J. High Energ. Phys.* 2017, 114 (2017), [https://doi.org/10.1007/JHEP05\(2017\)114](https://doi.org/10.1007/JHEP05(2017)114)
- G.Charles, L.Audouin, J.Bettane et al., "**Carbon wire chamber at sub-atmospheric pressure**", *Nuclear Instruments and Methods in Physics Research Section A:*

Accelerators, Spectrometers, Detectors and Associated Equipment Vol. 855, 21 May 2017, <https://doi.org/10.1016/j.nima.2017.03.001>

- M. Mazouz et al. (Jefferson Lab Hall A Collaboration), "**Rosenbluth Separation of the π^0 Electroproduction Cross Section Off the Neutron**", *Phys. Rev. Lett.* 118, 222002 – Published 1 June 2017, <https://doi.org/10.1103/PhysRevLett.118.222002>
- O. Davignon et al. (CMS Collaboration), "**Tau lepton trigger and identification at CMS in Run-2**", *NUCLEAR AND PARTICLE PHYSICS PROCEEDINGS*, Vol. 287 Pages: 107-110, <https://doi.org/10.1016/j.nuclphysbps.2017.03.055>
- D. Kikoła, M.G. Echevarria, C.Hadjidakis et al., "**Feasibility Studies for Single Transverse-Spin Asymmetry Measurements at a Fixed-Target Experiment Using the LHC Proton and Lead Beams (AFTER@LHC)**", *Few-Body Syst* 58, 139 (2017), <https://doi.org/10.1007/s00601-017-1299-x>
- E. Armengaud, Q. Arnaud, C. Augier et al., "**Performance of the EDELWEISS-III experiment for direct dark matter searches**", *2017 JINST 12 P08010*, <https://doi.org/10.1088/1748-0221/12/08/P08010>
- R. Boussarie, A.V. Grabovsky et al., "**Next-to-Leading Order Computation of Exclusive Diffractive Light Vector Meson Production in a Saturation Framework**", *Phys.Rev.Lett.* 119 (2017) 7, 072002, <https://doi.org/10.1103/PhysRevLett.119.072002>
- B. Trzeciak, C. Da Silva, E.G. Ferreira et al., "**Heavy-Ion Physics at a Fixed-Target Experiment Using the LHC Proton and Lead Beams (AFTER@LHC): Feasibility Studies for Quarkonium and Drell–Yan Production**", *Few-Body Syst* 58, 148 (2017), <https://doi.org/10.1007/s00601-017-1308-0>
- K. Inayoshi, N. Tamanini, C. Caprini, and Z. Haiman, "**Probing stellar binary black hole formation in galactic nuclei via the imprint of their center of mass acceleration on their gravitational wave signal**", *Phys. Rev. D* 96, 063014 – Published 25 September 2017, <https://doi.org/10.1103/PhysRevD.96.063014>
- H. Zonunmawia, W. Khylllep, N. Roy, J. Dutta, and N. Tamanini, "**Extended phase space analysis of interacting dark energy models in loop quantum cosmology**", *Phys. Rev. D* 96, 083527 – Published 27 October 2017, <https://doi.org/10.1103/PhysRevD.96.083527>
- E. Maurice (LHCb collaboration), "**New high resolution measurements of open and hidden charm production in proton-nucleus collisions at $\sqrt{s}=110$ GeV with LHCb**", *Nuclear Physics A*, Vol. 967, November 2017, Pages 624-627, <https://doi.org/10.1016/j.nuclphysa.2017.05.032>
- G. Arcadi, P. Ghosh, Y. Mambrini, M. Pierre and Farinaldo S. Queiroz, "**Z' portal to Chern-Simons Dark Matter**", *JCAP*11(2017)020, <https://doi.org/10.1088/1475-7516/2017/11/020>

- R. Aaij et al. (LHCb Collaboration), "**Study of bb^- correlations in high energy proton-proton collisions**", *J. High Energ. Phys.* 2017, 30 (2017), [https://doi.org/10.1007/JHEP11\(2017\)030](https://doi.org/10.1007/JHEP11(2017)030)
- M. Defurne, A. Jiménez-Argüello, Z. Ahmed et al., "A glimpse of gluons through deeply virtual compton scattering on the proton", *Nat Commun* 8, 1408 (2017), <https://doi.org/10.1038/s41467-017-01819-3>
- A. Korichi, T. Lauritsen, A.N. Wilson et al., "**Performance of a gamma-ray tracking array: Characterizing the AGATA array using a ^{60}Co source**", *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, Vol. 872, 11 November 2017, <https://doi.org/10.1016/j.nima.2017.08.020>
- P. Tremblin, G. Chabrier, I. Baraffe et al., "**Cloudless Atmospheres for Young Low-gravity Substellar Objects**", *2017 ApJ* 850 46, <https://doi.org/10.3847/1538-4357/aa9214>
- E. Armengaud, C. Augier, A.S. Barabash et al., "**Development of ^{100}Mo -containing scintillating bolometers for a high-sensitivity neutrinoless double-beta decay search**", *Eur. Phys. J. C* 77, 785 (2017), <https://doi.org/10.1140/epjc/s10052-017-5343-2>
- R. Aaij et al. (LHCb Collaboration), "**Measurement of CP observables in $B^\pm \rightarrow DK^{*\pm}$ decays using two- and four-body D final states**", *J. High Energ. Phys.* 2017, 156 (2017), [https://doi.org/10.1007/JHEP11\(2017\)156](https://doi.org/10.1007/JHEP11(2017)156)
- R. Aaij et al. (LHCb Collaboration), "**Measurement of CP violation in $B^0 \rightarrow J/\psi K^0_s$ and $B^0 \rightarrow \psi(2S)K^0_s$ decays**", *J. High Energ. Phys.* 2017, 170 (2017), [https://doi.org/10.1007/JHEP11\(2017\)170](https://doi.org/10.1007/JHEP11(2017)170)
- R. Aaij et al. (LHCb Collaboration), " **χ_{c1} and χ_{c2} Resonance Parameters with the Decays $\chi_{c1, c2} \rightarrow J/\psi \mu^+ \mu^-$** ", *Phys. Rev. Lett.* 119, 221801 – Published 28 November 2017, <https://doi.org/10.1103/PhysRevLett.119.221801>
- J.B. Durrive, H. Tashiro, M. Langer, N. Sugiyama, "**Mean energy density of photogenerated magnetic fields throughout the Epoch of Reionization**", *Monthly Notices of the Royal Astronomical Society*, Volume 472, Issue 2, December 2017, <https://doi.org/10.1093/mnras/stx2007>
- G. Slodzian, Ting-Di Wu, J. Duprat, C. Engrand, J.L. Guerquin-Kern, "**Dynamic transfer applied to secondary ion imaging over large scanned fields with the nanoSIMS 50 at high mass resolution**", *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, Vol. 412, 1 December 2017, <https://doi.org/10.1016/j.nimb.2017.06.019>
- C. Canot, M. Alokhina, P. Abbon et al., "**Development of the fast and efficient gamma detector using Cherenkov light for TOF-PET**", *2017 JINST* 12 C12029, <https://doi.org/10.1088/1748-0221/12/12/C12029>

- J.L. Baudino, P. Molliere, O. Venot et al., "**Toward the Analysis of JWST Exoplanet Spectra: Identifying Troublesome Model Parameters**", *ASTROPHYSICAL JOURNAL*, Volume: 850 Issue: 2, Article Number: 150, <https://doi.org/10.3847/1538-4357/aa95be>
- R. Aaij et al. (LHCb Collaboration), "**First Observation of the Rare Purely Baryonic Decay $B^0 \rightarrow p \bar{p}$** ", *Phys. Rev. Lett.* 119, 232001 – Published 4 December 2017, <https://doi.org/10.1103/PhysRevLett.119.232001>
- B. Pire and L. Szymanowski, "**Exclusive neutrino production of a charmed vector meson and transversity gluon generalized parton distributions**", *Phys. Rev. D* 96, 114008 – Published 12 December 2017, <https://doi.org/10.1103/PhysRevD.96.114008>
- R. Aaij et al. (LHCb Collaboration), "**Measurement of the B^\pm production cross-section in pp collisions at $\sqrt{s}=7$ and 13 TeV**", *J. High Energ. Phys.* 2017, 26 (2017), [https://doi.org/10.1007/JHEP12\(2017\)026](https://doi.org/10.1007/JHEP12(2017)026)
- Y. Genolini, P. D. Serpico, M. Boudaud et al., "**Indications for a high-rigidity break in the cosmic-ray diffusion coefficient**", *Phys. Rev. Lett.* 119, 241101 (2017), <https://doi.org/10.1103/PhysRevLett.119.241101>
- K. Morishima, M. Kuno, A. Nishio et al., "**Discovery of a big void in Khufu's Pyramid by observation of cosmic-ray muons**", *Nature* 552, 386–390 (2017), <https://doi.org/10.1038/nature24647>