

# Physics

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# 1 Astrophysics

- [1] Alemanno G. Orofino V., Di Achille G. and Mancarella F. A new model for evaluating the duration of water flow in the Martian fluvial systems *em memsai*, 87, 40, 2016.
- [2] Barucci, M. A. and Filacchione, G. and Fornasier, S. and Raponi, A. and Deshapriya, J. D. P. and Tosi, F. and Feller, C. and Ciarniello, M. and Sierks, H. and Capaccioni, F. and Pommerol, A. and Massironi, M. and Ookay, N. and Merlin, F. and Vincent, J.-B. and Fulchignoni, M. and Guilbert-Lepoutre, A. and Perna, D. and Capria, M. T. and Hasselmann, P. H. and Rousseau, B. and Barbieri, C. and Bockelée-Morvan, D. and Lamy, P. L. and De Sanctis, C. and Rodrigo, R. and Erard, S. and Koschny, D. and Leyrat, C. and Rickman, H. and Drossart, P. and Keller, H. U. and A'Hearn, M. F. and Arnold, G. and Bertaux, J.-L. and Bertini, I. and Cerroni, P. and Cremonese, G. and Da Deppo, V. and Davidsson, B. J. R. and El-Maarry, M. R. and Fonti, S. and Fulle, M. and Groussin, O. and Güttler, C. and Hviid, S. F. and Ip, W. and Jorda, L. and Kappel, D. and Knollenberg, J. and Kramm, J.-R. and Kührt, E. and Küppers, M. and Lara, L. and Lazzarin, M. and Lopez Moreno, J. J. and Mancarella, F. and Marzari, F. and Mottola, S. and Naletto, G. and Pajola, M. and Palomba, E. and Quirico, E. and Schmitt, B. and Thomas, N. and Tubiana, C., Detection of exposed H<sub>2</sub>O ice on the nucleus of comet 67P/Churyumov-Gerasimenko. as observed by Rosetta OSIRIS and VIRTIS instruments *aap*, 595, A102, 2016.
- [3] D'Elia M., Orofino V., Fonti S., Mancarella F. and Alemanno G., Spectroscopy studies of particulate minerals to understand the Martian aerosol *Atti del 102<sup>o</sup> Congresso Nazionale della Società Italiana di Fisica*, p. 190, 2016
- [4] D'Elia M., Blanco A., Galiano A., Orofino V., Fonti S., Mancarella F., Guido A., Russo F. and Mastandrea A. SEM morphological studies of carbonates and the search for ancient life on Mars *INTERNATIONAL JOURNAL OF ASTROBIOLOGY*, <http://dx.medra.org/10.1017/S147355041600015X> , 2016
- [5] D'Elia M., Blanco A., Galiano A., Orofino V., Fonti S., Mancarella F. and Guido A., A comparative SEM morphological study of biogenic and abiogenic carbonates for the search for biostructures on Mars, *journal=MEMORIE DELLA SOCIET ASTRONOMICA ITALIANA SUPPLEMENTI*, 87, 97-103, 2016.
- [6] De Paolis F. and Gurzadyan V. G. and Nucita A. A. and Chemin L. and Qadir A. and Kashin A. L. and Khachatryan H. G. and Sargsyan S. and Yegorian G. and Ingrosso G. and Jetzer Ph. and Vetrugno D., Triangulum galaxy viewed by Planck, *ASTRONOMY & ASTROPHYSICS*, 57-63, 593, 2016.
- [7] De Paolis F. and Giordano Mosè and Ingrosso Gabriele and Manni Luigi and Nucita Achille and Strafella Francesco, The Scales of Gravitational Lensing, *UNIVERSE*, 1-22, 2, 2016.
- [8] Filacchione, G. and de Sanctis, M. C. and Capaccioni, F. and Raponi, A. and Tosi, F. and Ciarniello, M. and Cerroni, P. and Piccioni, G. and Capria, M. T. and Palomba, E. and Bellucci, G. and Erard, S. and Bockelee-Morvan, D. and Leyrat, C. and Arnold, G. and Barucci, M. A. and Fulchignoni, M. and Schmitt, B. and Quirico, E. and Jaumann, R. and Stephan, K. and Longobardo, A. and Mennella, V. and Migliorini, A. and Ammannito, E. and Benkhoff, J. and Bibring, J. P. and Blanco, A. and Blecka, M. I. and Carlson, R. and Carsenty, U. and Colangeli, L. and Combes, M. and Combi, M. and Crovisier, J. and Drossart, P. and Encrenaz, T. and Federico, C. and Fink, U. and Fonti, S. and Ip, W. H. and Irwin, P. and Kuehrt, E. and Langevin, Y. and Magni, G. and McCord, T. and Moroz, L. and Mottola, S. and Orofino, V. and Schade, U. and Taylor, F. and Tiphene, D. and Tozzi, G. P. and Beck, P. and Biver, N. and Bonal, L. and Combe, J.-P. and Despan, D. and Flamini, E. and Formisano, M. and Fornasier, S. and Frigeri, A. and Grassi, D. and Gudipati, M. S. and Kappel, D. and Mancarella, F. and Markus, K. and Merlin, F. and Orosei, R. and Rinaldi, G. and Cartacci, M. and Cicchetti, A. and Giuppi, S. and Hello, Y. and Henry, F. and Jacquino, S. and Reess, J. M. and Noschese, R. and Politi, R. and Peter, G., Exposed water ice on the nucleus of comet 67P/Churyumov-Gerasimenko *NATURE*, 529, 368-372, 529, 2016.

- [9] Filacchione, G. and Capaccioni, F. and Ciarniello, M. and Raponi, A. and Tosi, F. and De Sanctis, M. C. and Erard, S. and Morvan, D. B. and Leyrat, C. and Arnold, G. and Schmitt, B. and Quirico, E. and Piccioni, G. and Migliorini, A. and Capria, M. T. and Palomba, E. and Cerroni, P. and Longobardo, A. and Barucci, A. and Fornasier, S. and Carlson, R. W. and Jaumann, R. and Stephan, K. and Moroz, L. V. and Kappel, D. and Rousseau, B. and Fonti, S. and Mancarella, F. and Despan, D. and Faure, M., The global surface composition of 67P/CG nucleus by Rosetta/VIRTIS. (I) Prelanding mission phase”, *ICARUS*, 274, 334–349, 2016.
- [10] Filacchione, G. and Raponi, A. and Capaccioni, F. and Ciarniello, M. and Tosi, F. and Capria, M. T. and De Sanctis, M. C. and Migliorini, A. and Piccioni, G. and Cerroni, P. and Barucci, M. A. and Fornasier, S. and Schmitt, B. and Quirico, E. and Erard, S. and Bockelee-Morvan, D. and Leyrat, C. and Arnold, G. and Mennella, V. and Ammannito, E. and Bellucci, G. and Benkhoff, J. and Bibring, J. P. and Blanco, A. and Blecka, M. I. and Carlson, R. and Carsenty, U. and Colangeli, L. and Combes, M. and Combi, M. and Crovisier, J. and Drossart, P. and Encrenaz, T. and Federico, C. and Fink, U. and Fonti, S. and Fulchignoni, M. and Ip, W.-H. and Irwin, P. and Jaumann, R. and Kuehrt, E. and Langevin, Y. and Magni, G. and McCord, T. and Moroz, L. and Mottola, S. and Palomba, E. and Schade, U. and Stephan, K. and Taylor, F. and Tiphene, D. and Tozzi, G. P. and Beck, P. and Biver, N. and Bonal, L. and Combe, J.-P. and Despan, D. and Flamini, E. and Formisano, M. and Frigeri, A. and Grassi, D. and Gudipati, M. S. and Kappel, D. and Longobardo, A. and Mancarella, F. and Markus, K. and Merlin, F. and Orosei, R. and Rinaldi, G. and Cartacci, M. and Cicchetti, A. and Hello, Y. and Henry, F. and Jacquino, S. and Reess, J. M. and Noschese, R. and Politi, R. and Peter, G. Seasonal exposure of carbon dioxide ice on the nucleus of comet 67P/Churyumov-Gerasimenko, *Science*, 354, 1563–1566, 2016.
- [11] Fonti, S. and Mancarella, F. and Liuzzi, G. and Roush, T. and Blanco, A., Discussing the confidence in the identification of Martian CH<sub>4</sub> using TES data, *memsai*, 87, 183, 2016.
- [12] Giannini T. and Lorenzetti D. and Harutyunyan A. and Li Causi G. and Antonucci S. and Arkharov A. A. and Larionov V. M. and Strafella F. and Carini R. and Di Paola A. and Speziali R. A new insight into the variability of V1184 Tauri, *ASTRONOMY & ASTROPHYSICS*, 588, A20, 2016.
- [13] Hamolli Lindita and Hafizi MIMOZA and De Paolis F. and Nucita Achille, Investigating the free-floating planet mass by Euclid observations, *ASTROPHYSICS AND SPACE SCIENCE*, 361, 274–278, 2016.
- [14] Liuzzi, G. and Masiello, G. and Serio, C. and Mancarella, F. and Fonti, S. and Roush, T., Simultaneous physical retrieval of atmospheric and surface state from Martian spectra: the phi MARS algorithm and application to TES, *memsai*, 87, 184, 2016.
- [15] Mancini, L. and Giordano, M. and Mollière, P. and Southworth, J. and Brahm, R. and Ciceri, S. and Henning, T. An optical transmission spectrum of the transiting hot Jupiter in the metal-poor WASP-98 planetary system, *MONTHLY NOTICE OF ROYAL ASTRONOMY JOURNAL*, 461, 1053-1061, 2016.
- [16] Molinari S. and Schisano E. and Elia D. and Pestalozzi M. and Traficante A. and Pezzuto S. and Swinyard B. M. and Noriega-Crespo A. and Bally J. and Moore T. J. T. and Plume R. and Zavagno A. and di Giorgio A. M. and Liu S. J. and Pilbratt G. L. and Mottram J. C. and Russeil D. and Piazzi L. and Veneziani M. and Benedettini M. and Calzoletti L. and Faustini F. and Natoli P. and Piacentini F. and Merello M. and Palmese A. and Del Grande R. and Polychroni D. and Rygl K. L. J. and Polenta G. and Barlow M. J. and Bernard J.-P. and Martin P. G. and Testi L. and Ali B. and Andr P. and Beltrn M. T. and Billot N. and Carey S. and Cesaroni R. and Compigne M. and Eden D. and Fukui Y. and Garcia-Lario P. and Hoare M. G. and Huang M. and Joncas G. and Lim T. L. and Lord S. D. and Martinavarro-Armengol S. and Motte F. and Paladini R. and Paradis D. and Peretto N. and Robitaille T. and Schilke P. and Schneider N. and Schulz B. and Sibthorpe B. and Strafella F. and Thompson M. A. and Umana G. and Ward-Thompson D. and Wyrowski F., Hi-GAL, theHerschelinfrared Galactic Plane Survey: photometric maps and compact source catalogues, *ASTRONOMY & ASTROPHYSICS*, 591, A149 1–A149 33, 2016.
- [17] Nucita A. A. and De Paolis F. and Ingrassio G. and Giordano M. and Manni L., Parallax and Orbital Effects in Astrometric Microlensing with Binary Sources, *THE ASTROPHYSICAL JOURNAL*, 823, 120–128, 2016.

- [18] Orofino V. and Bernardini P., Archaeoastronomical Study of the Main Pyramids of Giza, Egypt: Possible Correlations with the Stars?, *ARCHAEOLOGICAL DISCOVERY*, 4 1-10, 2016.
- [19] Pajola, M. and Rossato, S. and Baratti, E. and Mangili, C. and Mancarella, F. and McBride, K. and Coradini, M., The Simud-Tiu Valles hydrologic system: A multidisciplinary study of a possible site for future Mars on-site exploration journal = *ICARUS*, 268, 355-381, 2016.
- [20] Quirico, E. and Moroz, L. V. and Schmitt, B. and Arnold, G. and Faure, M. and Beck, P. and Bonal, L. and Ciarniello, M. and Capaccioni, F. and Filacchione, G. and Erard, S. and Leyrat, C. and Bockelée-Morvan, D. and Zinzi, A. and Palomba, E. and Drossart, P. and Tosi, F. and Capria, M. T. and De Sanctis, M. C. and Raponi, A. and Fonti, S. and Mancarella, F. and Orofino, V. and Barucci, A. and Blecka, M. I. and Carlson, R. and Despan, D. and Faure, A. and Fornasier, S. and Gudipati, M. S. and Longobardo, A. and Markus, K. and Mennella, V. and Merlin, F. and Piccioni, G. and Rousseau, B. and Taylor, F., Refractory and semi-volatile organics at the surface of comet 67P/Churyumov-Gerasimenko: Insights from the VIRTIS/Rosetta imaging spectrometer, *icarus*, 272, 32, 2016.
- [21] Tosi F., Capaccioni F., Filacchione G., Erard S., Rouseeou B., Combe J.-P., Capria M. T., Leyrat C., Longobardo A., Bockelée-Morvan D., Kappel D., Arnold G., Fonti S., Mancarella F., Kuehrt E., and Mottola S., Seasonal effects on the nucleus of comet 67P revealed by Rosetta/VIRTIS EGU General Assembly Conference Abstracts, 18, 17371, 2016

## 2 Astroparticle Physics

- [1] Azzarello P., Ambrosi G., Asfandiyarov R., Bernardini P., Bertucci B., Bolognini A., Cadoux F., Caprai M., De Mitri I., Domenjoz M., Dong Y., Duranti M., Fan R., Fusco P., Gallo V., Gargano F., Gong K., Guo D., Husi C., Ionica M., La Marra D., Loparco F., Marsella G., Mazziotta M.N., Mesa J., Nardinocchi A., Nicola L., Pelleriti G., Peng W., Pohl M., Postolache V., Qiao R., Surdo A., Tykhonov A., Vitillo S., Wang H., Weber M., Wu D., Wu X., and Zhang F. The dampe silicontungsten tracker. *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT*, 831:378–384, 2016.
- [2] Bartoli B Ab, Bernardini, Pcd P Cd, Bi, Xje X J E, Cao, Ze Z E, Catalanotti, Sab S Ab, Chen, Sze S Z E, Chen, Tlf T L F, Cui, Swg S W G, Dai, Bzh B Z H, D’Amone, Acd A Cd, Danzengluobuf, Mitri De, Icd I Cd, Piazzoli, Bdab B D Ab, Girolamo Di, Tab T Ab, Sciascio Di, Gi G I, Feng, Cjf C F J, Feng, Ze Z E, Feng, Zk Z K, Gou, Qbe Q B E, Guo, Yqe Y Q E, He, Hhe H H E, Hu, Hf H F, Hu, He H E, Iacovacci, Mab M Ab, Iuppa, Ril R Il, Jia, Hyk H Y K, Labacirenf, Li, Hjf H J F, Liu, Ce C E, Liu, Jh J H, Liu, Myf M Y F, Lu, He H E, Ma, Lle L L E, Ma, Xhe X H E, Mancarella, Gcd G Cd, Mari, Smmn S M Mn, Marsella, Gcd G Cd, Mastroianni, Sb S B, Montini, Pi P I, Ning, Ccf C C F, Perrone, Lcd L Cd, Pistilli, Pmn P Mn, Salvini, Po P O, Santonico, Ril R Il, Shen, Pre P R E, Sheng, Xde X D E, Shi, Fe F E, Surdo, Ad A D, Tan, Yhe Y H E, Vallania, Ppq P Pq, Vernetto, Spq S Pq, Vigorito, Cqr C Qr, Wang, He H E, Wu, Cye C Y E, Wu, Hre H R E, Xue, Lj L J, Yang, Qyh Q Y H, Yang, Xch X C H, Yao, Zge Z G E, Yuan, Aff A F F, Zha, Me M E, Zhang, Hme H M E, Zhang, Lh L H, Zhang, Xyj X Y J, Zhang, Ye Y E, Zhao, Je J E, Zhaxicirenf, Zhaxisangzhuf, Zhou, Xxk X X K, Zhu, Frk F R K, and Zhu. 4.5 years of multi-wavelength observations of mrk 421 during the argo-ybj and fermi common operation time. *ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES*, 222:6–22, 2016.
- [3] Bartoli B, Bernardini P, Bi Xj, Cao Z, Catalanotti S, Chen Sz, Chen Tl, Cui Sw, Dai Bz, D’Amone A, Danzengluobu, De Mitri I, Piazzoli Bd, Di Girolamo T, Di Sciascio G, Feng Cf, Feng Zy, Feng Zy, Gou Qb, Guo Yq, He Hh, Hu H, Hu H, Iacovacci M, Iuppa R, Jia Hy, Labaciren, Li Hj, Liu C, Liu J, Liu My, Lu H, Ma Ll, Ma Xh, Mancarella G, Mari Sm, Marsella G, Mastroianni S, Montini P, Ning Cc, Perrone L, Pistilli P, Salvini P, Santonico R, Shen Pr, Sheng Xd, Shi F, Surdo A, Tan Yh, Vallania P, Vernetto S, Vigorito C, Wang H, Wu Cy, Wu Hr, Xue L, Yang Qy, Yang Xc, Yao Zg, Yuan Af, Zha M, Zhang Hm, Zhang L, Zhang Xy, Zhang Y, Zhao J, Zhaxiciren, Zhaxisangzhu, Zhou Xx, Zhu Fr, Zhu Qq, Stenkin Yv, Alekseenko Vv, Aynutdinov V, Cai Zy, Guo Xw, Liu Y, Rulev V, Shchegolev Ob, Stepanov V, Volchenko V, and Zhang H[ 7 ] Less. Detection of thermal

neutrons with the prisma-ybj array in extensive air showers selected by the argo-ybj experiment. *ASTROPARTICLE PHYSICS*, Volume 81:49–60, 2016.

- [4] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, V. Scherini, and F. et AL. Strafella. Evidence for a mixed mass composition at the ???ankle??? in the cosmic-ray spectrum. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, 762:288–295, 2016. cited By 1.
- [5] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, V. Scherini, and F. et AL. Strafella. Testing hadronic interactions at ultrahigh energies with air showers measured by the pierre auger observatory. *Physical Review Letters*, 117(19), 2016. cited By 0.
- [6] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, V. Scherini, and F. et AL. Strafella. Search for ultrarelativistic magnetic monopoles with the pierre auger observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 94(8), 2016. cited By 0.
- [7] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, and V. et AL. Scherini. Measurement of the radiation energy in the radio signal of extensive air showers as a universal estimator of cosmic-ray energy. *Physical Review Letters*, 116(24), 2016. cited By 3.
- [8] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, and V. et AL. Scherini. Energy estimation of cosmic rays with the engineering radio array of the pierre auger observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 93(12), 2016. cited By 5.
- [9] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, V. Scherini, and F. et AL. Strafella. Azimuthal asymmetry in the risetime of the surface detector signals of the pierre auger observatory. *Physical Review D - Particles, Fields, Gravitation and Cosmology*, 93(7), 2016. cited By 1.
- [10] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, and V. et AL. Scherini. Prototype muon detectors for the amiga component of the pierre auger observatory. *Journal of Instrumentation*, 11(2), 2016. cited By 3.
- [11] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, and V. et AL. Scherini. Nanosecond-level time synchronization of autonomous radio detector stations for extensive air showers. *Journal of Instrumentation*, 11(1), 2016. cited By 2.
- [12] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, V. Scherini, and F. et AL. Strafella. Search for correlations between the arrival directions of icecube neutrino events and ultrahigh-energy cosmic rays detected by the pierre auger observatory and the telescope array. *Journal of Cosmology and Astroparticle Physics*, 2016(1), 2016. cited By 3.
- [13] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, and V. et AL. Scherini. Measurement of the muon production depths at the pierre auger observatory. *European Physical Journal Plus*, 131(9), 2016. cited By 1.
- [14] C. Bleve, G. Cataldi, M.R. Coluccia, I. De Mitri, G. Marsella, D. Martello, L. Perrone, V. Scherini, and F. et AL. Strafella. Ultrahigh-energy neutrino follow-up of gravitational wave events gw150914 and gw151226 with the pierre auger observatory. *Phys. Rev. D*, 94:122007, Dec 2016.
- [15] De Mitri I. Measurement of the cosmic ray all-particle and light-component energy spectra with the argo-ybj experiment. *EPJ WEB OF CONFERENCES*, 121:03009–03014, 2016.
- [16] Dong Yongwei, Quan Zheng, Wang Junjing, Xu Ming, Albergo Sebastiano, Ambrogini Filippo, Ambrosi Giovanni, Azzarello Philipp, Bai Yonglin, Bao Tianwei, Baldini Luca, Battiston Roberto, Bernardini Paolo, Chen Zhen, D’Alessandro Raffaello, Duranti Matteo, D’Urso Domenico, Fusco Piergiorgio, Gao Jiarui, Gao Xiaohui, Gargano Fabio, Giglietto Nicola, Hu Bingliang, Li Ran, Li Yong, Liu Xin, Loparco Francesco, Lu Jinguang, Marsella Giovanni, Mazziotta Mario N., De Mitri I., Mori Nicola, Orsi Silvio, Oscar Adriani, Pearce Mark, Pohl Martin, Ryde Felix, Shi

Dalian, Spillantini Piero, Su Meng, Sun Xin, Surdo Antonio, Walter Roland, Wang Bo, Wang Le, Wang Ruijie, Wang Zhigang, Wu Bobing, Wu Xin, Yan Peng, Zhang Li, and Zhang Shuangnan. Experimental verification of the herd prototype at cern sps. In *Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray*, volume 9905, pages 99056D–99056D, BELLINGHAM – USA, giugno 2016. Jan-Willem A. den Herder; Tadayuki Takahashi; Mars.

- [17] Surdo A. Study of the galactic cosmic ray energy spectrum with the ARGO-YBJ experiment Proceedings of 28th Texas Symposium on Relativistic Astrophysics, <https://indico.cern.ch/event/336103>.

### 3 High Energy Physics with Accelerators

- [1] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the  $bb$  dijet cross section in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-670:1–24, 2016.
- [2] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. A measurement of material in the ATLAS tracker using secondary hadronic interactions in 7 TeV pp collisions. *JOURNAL OF INSTRUMENTATION*, 11-P11020:1–40, 2016.
- [3] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Study of hard double-parton scattering in four-jet events in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS experiment. *JOURNAL OF HIGH ENERGY PHYSICS*, 11-110:1–52, 2016.
- [4] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Luminosity determination in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector at the LHC. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-653:1–45, 2016.
- [5] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the photon identification efficiencies with the ATLAS detector using LHC run-1 data. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-666:1–42, 2016.
- [6] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for the standard model Higgs boson produced by vector-boson fusion in 8 TeV pp collisions and decaying to bottom quarks with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 11-112:1–36, 2016.
- [7] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for squarks and gluinos in events with hadronically decaying tau leptons, jets and missing transverse momentum in proton-proton collisions at  $\sqrt{s} = 13$  TeV recorded with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-683:1–33, 2016.
- [8] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for supersymmetry in a final state containing two photons and missing transverse momentum in  $\sqrt{s} = 13$  TeV pp collisions at the LHC using the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-517:1–23, 2016.
- [9] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of  $W^+W^-$  production in association with one jet in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 763:114–133, 2016.
- [10] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the inelastic proton-proton cross section at  $\sqrt{s} = 13$  TeV with the ATLAS detector at the LHC. *PHYSICAL REVIEW LETTERS*, 117-182002:1–19, 2016.
- [11] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for minimal supersymmetric standard model Higgs bosons  $h/a$  and for a  $Z'$  boson in the  $\tau\tau$  final state produced in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-585:1–30, 2016.

- [12] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new resonances in events with one lepton and missing transverse momentum in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 762:334–352, 2016.
- [13] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for heavy resonances decaying to a Z boson and a photon in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 764:11–30, 2016.
- [14] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for the Higgs boson produced in association with a w boson and decaying to four b-quarks via two spin-zero particles in pp collisions at 13 TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-605:1–31, 2016.
- [15] Aaboud M, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of top quark pair differential cross-sections in the dilepton channel in pp collisions at  $\sqrt{s} = 7$  and 8 TeV with ATLAS. *PHYSICAL REVIEW. D*, 94-092003:1–33, 2016.
- [16] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for heavy long-lived charged R-hadrons with the ATLAS detector in  $3.2 \text{ fb}^{-1}$  of proton-proton collision data at  $\sqrt{s} = 13$  TeV. *PHYSICS LETTERS. SECTION B*, 760:647–665, 2016.
- [17] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for single production of vector-like quarks decaying into Wb in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-442:1–26, 2016.
- [18] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the inclusive isolated prompt photon cross section in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 08-005:1–41, 2016.
- [19] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of fiducial differential cross sections of gluon-fusion production of Higgs bosons decaying to  $ww + e$  with the ATLAS detector at  $\sqrt{s} = 8$  TeV. *JOURNAL OF HIGH ENERGY PHYSICS*, 08-104:1–62, 2016.
- [20] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for resonances in the mass distribution of jet pairs with one or two jets identified as b-jets in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 759:229–246, 2016.
- [21] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. A search for an excited muon decaying to a muon and two jets in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *NEW JOURNAL OF PHYSICS*, 18-072021:1–21, 2016.
- [22] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the charged-particle multiplicity inside jets from  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-322:1–23, 2016.
- [23] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Beam-induced and cosmic-ray backgrounds observed in the ATLAS detector during the LHC 2012 proton-proton running period. *JOURNAL OF INSTRUMENTATION*, 11-P05013:1–77, 2016.
- [24] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena in events with a photon and missing transverse momentum in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 06-059:1–40, 2016.
- [25] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for single production of a vector-like quark via a heavy gluon in the 4b final state with the ATLAS detector in pp collisions at  $\sqrt{s} = 8$  TeV. *PHYSICS LETTERS. SECTION B*, 758:249–268, 2016.
- [26] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for squarks and gluinos in final states with jets and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-392:1–29, 2016.

- [27] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for supersymmetry at  $\sqrt{s} = 13$  TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-259:1–26, 2016.
- [28] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Probing lepton flavour violation via neutrinoless  $\tau \rightarrow 3\mu$  decays with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-232:1–25, 2016.
- [29] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Muon reconstruction performance of the ATLAS detector in proton–proton collision data at  $\sqrt{s} = 13$  TeV. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-292:1–30, 2016.
- [30] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. A search for top squarks with R-parity-violating decays to all-hadronic final states with the ATLAS detector in  $\sqrt{s} = 8$  TeV proton-proton collisions. *JOURNAL OF HIGH ENERGY PHYSICS*, 06-067:1–48, 2016.
- [31] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for charged Higgs bosons produced in association with a top quark and decaying via  $H^\pm \rightarrow \tau\nu$  using pp collision data recorded at  $\sqrt{s} = 13$  TeV by the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 759:555–574, 2016.
- [32] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for metastable heavy charged particles with large ionization energy loss in pp collisions at  $\sqrt{s} = 13$  TeV using the ATLAS experiment. *PHYSICAL REVIEW. D*, 93-112015:1–25, 2016.
- [33] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of  $Z\gamma$  and  $Z\gamma\gamma$  production in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICAL REVIEW. D*, 93-112002:1–41, 2016.
- [34] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of the charge asymmetry in top-quark pair production in the dilepton final state at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICAL REVIEW. D*, 94-032006:1–31, 2016.
- [35] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for the standard model Higgs boson decaying into bb produced in association with top quarks decaying hadronically in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 05-160:1–50, 2016.
- [36] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the differential cross-sections of prompt and non-prompt production of  $J/\Psi$  and  $\Psi(2s)$  in pp collisions at  $\sqrt{s} = 7$  and 8 TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-283:1–47, 2016.
- [37] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Charged-particle distributions in  $\sqrt{s} = 13$  TeV pp interactions measured with the ATLAS detector at the LHC. *PHYSICS LETTERS. SECTION B*, 758:67–88, 2016.
- [38] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for pair production of gluinos decaying via stop and sbottom in events with b-jets and large missing transverse momentum in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICAL REVIEW. D*, 94-032003:1–32, 2016.
- [39] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the double-differential high-mass Drell-Yan cross section in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 08-009:1–60, 2016.
- [40] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the centrality dependence of the charged-particle pseudorapidity distribution in proton-lead collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-199:1–30, 2016.



- [41] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of  $W^\pm Z$  production cross sections in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector and limits on anomalous gauge boson self-couplings. *PHYSICAL REVIEW. D*, 93-092004:1–36, 2016.
- [42] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena in final states with large jet multiplicities and missing transverse momentum with ATLAS using  $\sqrt{s} = 13$  TeV proton-proton collisions. *PHYSICS LETTERS. SECTION B*, 757:334–355, 2016.
- [43] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of  $D^{*\pm}$ ,  $D^\pm$  and  $D_s^\pm$  meson production cross sections in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector. *NUCLEAR PHYSICS. B*, 907:717–763, 2016.
- [44] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of  $W^\pm$  and  $Z$ -boson production cross sections in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 759:601–621, 2016.
- [45] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Reconstruction of hadronic decay products of  $\tau$  leptons with the ATLAS experiment. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-295:1–26, 2016.
- [46] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Charged-particle distributions in pp interactions at  $\sqrt{s} = 8$  TeV measured with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-403:1–32, 2016.
- [47] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the transverse momentum and  $\phi_\eta^*$  distributions of Drell-Yan lepton pairs in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-291:1–61, 2016.
- [48] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of event-shape observables in  $Z \rightarrow l^+l^-$  events in pp collisions at  $\sqrt{s} = 7$  TeV with the ATLAS detector at the LHC. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-375:1–40, 2016.
- [49] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the relative width difference of the  $B^0\bar{B}^0$  system with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 06-081:1–38, 2016.
- [50] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Identification of high transverse momentum top quarks in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 06-093:1–80, 2016.
- [51] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Observation of long-range elliptic anisotropies in  $\sqrt{s} = 13$  and 2.76 TeV pp collisions with the ATLAS detector. *PHYSICAL REVIEW LETTERS*, 116-172301:1–20, 2016.
- [52] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the  $t\bar{t}$  production cross-section using e mu events with b-tagged jets in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 761:136–157, 2016.
- [53] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the CP-violating phase  $\phi_s$  and the  $B_s^0$  meson decay width difference with  $B_s^0 \rightarrow J/\Psi \phi$  decays in ATLAS. *JOURNAL OF HIGH ENERGY PHYSICS*, 08-147:1–44, 2016.
- [54] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for resonances in diphoton events at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 09-001:1–49, 2016.
- [55] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the top quark mass in the  $t\bar{t}$  dilepton channel from  $\sqrt{s} = 8$  TeV ATLAS data. *PHYSICS LETTERS. SECTION B*, 761:350–371, 2016.

- [56] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of exclusive  $\gamma\gamma \rightarrow W^+W^-$  production and search for exclusive Higgs boson production in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector. *PHYSICAL REVIEW D*, 94-032011:1–32, 2016.
- [57] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the angular coefficients in Z-boson events using electron and muon pairs from data taken at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 08-159:1–99, 2016.
- [58] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for the electroweak production of supersymmetric particles in  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector. *PHYSICAL REVIEW D*, 93-052002:1–50, 2016.
- [59] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of jet charge in dijet events from  $\sqrt{s} = 8$  TeV pp collisions with the ATLAS detector. *PHYSICAL REVIEW D*, 93-052003:1–35, 2016.
- [60] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for the standard model Higgs boson produced in association with a vector boson and decaying into a tau pair in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICAL REVIEW D*, 93-092005:1–25, 2016.
- [61] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for pair production of Higgs bosons in the  $b\bar{b}b\bar{b}$  final state using proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICAL REVIEW D*, 94-052002:1–29, 2016.
- [62] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for dark matter produced in association with a Higgs boson decaying to two bottom quarks in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICAL REVIEW D*, 93-072007:1–33, 2016.
- [63] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the total cross section from elastic scattering in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 761:158–178, 2016.
- [64] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of the Higgs boson production and decay rates and constraints on its couplings from a combined ATLAS and CMS analysis of the LHC pp collision data at  $\sqrt{s} = 7$  and 8 TeV. *JOURNAL OF HIGH ENERGY PHYSICS*, 08-045:1–111, 2016.
- [65] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for gluinos in events with an isolated lepton, jets and missing transverse momentum at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-565:1–29, 2016.
- [66] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Searches for heavy diboson resonances in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 09-173:1–25, 2016.
- [67] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for high-mass new phenomena in the dilepton final state using proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 761:372–392, 2016.
- [68] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Dark matter interpretations of ATLAS searches for the electroweak production of supersymmetric particles in  $\sqrt{s} = 8$  TeV proton-proton collisions. *JOURNAL OF HIGH ENERGY PHYSICS*, 09-175:1–43, 2016.
- [69] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of jet activity in top quark events using the e final state with two b-tagged jets in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 09-074:1–61, 2016.
- [70] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Charged-particle distributions at low transverse momentum in  $\sqrt{s} = 13$  TeV pp interactions measured with the ATLAS detector at the LHC. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-502:1–22, 2016.

- [71] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for Higgs and Z boson decays to  $\phi\gamma$  with the ATLAS detector. *PHYSICAL REVIEW LETTERS*, 117-111802:1–19, 2016.
- [72] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for top squarks in final states with one isolated lepton, jets, and missing transverse momentum in  $\sqrt{s} = 13$  TeV pp collisions with the ATLAS detector. *PHYSICAL REVIEW. D*, 94-052009:1–32, 2016.
- [73] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena in different-flavour high-mass dilepton final states in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-541:1–28, 2016.
- [74] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for bottom squark pair production in proton–proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-547:1–25, 2016.
- [75] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the  $W^\pm Z$  boson pair-production cross section in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 762:1–22, 2016.
- [76] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Study of the rare decays of  $B_s^0$  and  $B^0$  into muon pairs from data collected during the LHC run 1 with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-513:1–31, 2016.
- [77] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for scalar leptoquarks in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS experiment. *NEW JOURNAL OF PHYSICS*, 18-093016:1–25, 2016.
- [78] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of total and differential  $W^+W^-$  production cross sections in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector and limits on anomalous triple-gauge-boson couplings. *JOURNAL OF HIGH ENERGY PHYSICS*, 09-029:1–79, 2016.
- [79] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of the Higgs boson production and decay rates and coupling strengths using pp collision data at  $\sqrt{s} = 7$  and 8 TeV in the ATLAS experiment. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-6:1–51, 2016.
- [80] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for a high-mass Higgs boson decaying to a W boson pair in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 01-032:1–64, 2016.
- [81] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the production cross-section of a single top quark in association with a W boson at 8 TeV with the ATLAS experiment. *JOURNAL OF HIGH ENERGY PHYSICS*, 01-064:1–47, 2016.
- [82] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Constraints on non-standard model Higgs boson interactions in an effective field theory using differential cross sections measured in the  $H \rightarrow \gamma\gamma$  decay channel at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 753:69–85, 2016.
- [83] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for flavour-changing neutral current top-quark decays to  $qZ$  in pp collision data collected with the ATLAS detector at  $\sqrt{s} = 8$  TeV. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-12:1–24, 2016.
- [84] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of fiducial cross-sections for  $t\bar{t}$  production with one or two additional b-jets in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-11:1–37, 2016.

- [85] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the correlations between the polar angles of leptons from top quark decays in the helicity basis at  $\sqrt{s} = 7$  TeV using the ATLAS detector. *PHYSICAL REVIEW D*, 93-012002:1–23, 2016.
- [86] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Searches for scalar leptoquarks in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-5:1–28, 2016.
- [87] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Study of the  $B + c \rightarrow J/\Psi + D + s$  and  $B + c \rightarrow J/\Psi + D^* + s$  decays with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-4:1–24, 2016.
- [88] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurements of four-lepton production in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 753:552–572, 2016.
- [89] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Transverse momentum, rapidity, and centrality dependence of inclusive charged-particle production in  $\sqrt{s_{NN}} = 5.02$  TeV p+Pb collisions measured by the ATLAS experiment. *PHYSICS LETTERS. SECTION B*, 763:313–336, 2016.
- [90] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for dark matter produced in association with a hadronically decaying vector boson in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 763:251–268, 2016.
- [91] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the charge asymmetry in highly boosted top-quark pair production in  $\sqrt{s} = 8$  TeV pp collision data collected by the ATLAS experiment. *PHYSICS LETTERS. SECTION B*, 756:52–71, 2016.
- [92] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Evidence for single top-quark production in the s-channel in proton-proton collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector using the matrix element method. *PHYSICS LETTERS. SECTION B*, 756:228–246, 2016.
- [93] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for strong gravity in multijet final states produced in pp collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector at the LHC. *JOURNAL OF HIGH ENERGY PHYSICS*, 03-026:1–37, 2016.
- [94] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. A search for prompt lepton-jets in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 02-062:1–50, 2016.
- [95] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for charged Higgs bosons in the  $H^\pm \rightarrow tb$  decay channel in pp collisions at  $\sqrt{s} = 8$  TeV using the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 03-127:1–47, 2016.
- [96] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Dijet production in  $\sqrt{s} = 7$  TeV pp collisions with large rapidity gaps at the ATLAS experiment. *PHYSICS LETTERS. SECTION B*, 754:214–234, 2016.
- [97] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena in final states with an energetic jet and large missing transverse momentum in pp collisions at  $\sqrt{s} = 13$  TeV using the ATLAS detector. *PHYSICAL REVIEW. D*, 94-032005:1–32, 2016.
- [98] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena in events with at least three photons collected in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-210:1–26, 2016.
- [99] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena with photon+jet events in proton-proton collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 03-041:1–36, 2016.

- [100] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, Ventura A., and et al. Search for an additional, heavy Higgs boson in the  $h \rightarrow ZZ$  decay channel at  $\sqrt{s} = 8$  TeV in pp collision data with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-45:1–42, 2016.
- [101] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, Ventura A., and et al. Search for invisible decays of a Higgs boson using vector-boson fusion in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 01-172:1–43, 2016.
- [102] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for anomalous couplings in the wtb vertex from the measurement of double differential angular decay rates of single top quarks produced in the t-channel with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 04-023:1–45, 2016.
- [103] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Performance of b-jet identification in the ATLAS experiment. *JOURNAL OF INSTRUMENTATION*, 11-P04008:1–123, 2016.
- [104] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Combination of searches for W W, W Z, and Z Z resonances in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *PHYSICS LETTERS. SECTION B*, 755:285–305, 2016.
- [105] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for the production of single vector-like and excited quarks in the wt final state in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *JOURNAL OF HIGH ENERGY PHYSICS*, 02-110:1–45, 2016.
- [106] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, Ventura A., and et al. Search for single top-quark production via flavour changing neutral currents at 8 TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-55:1–30, 2016.
- [107] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for direct scalar top pair production in final states with two tau leptons in pp collisions at  $\sqrt{s} = 8$  TeV with the ATLAS detector. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-81:1–30, 2016.
- [108] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the ZZ production cross section in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector. *PHYSICAL REVIEW LETTERS*, 116-101801:1–19, 2016.
- [109] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the differential cross-section of highly boosted top quarks as a function of their transverse momentum in  $\sqrt{s} = 8$  TeV proton-proton collisions using the ATLAS detector. *PHYSICAL REVIEW D, PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY*, 93-032009:1–34, 2016.
- [110] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Measurement of the dependence of transverse energy production at large pseudorapidity on the hard-scattering kinematics of proton-proton collisions at  $\sqrt{s} = 2.76$  TeV with ATLAS. *PHYSICS LETTERS. SECTION B*, 756:10–28, 2016.
- [111] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Identification of boosted, hadronically decaying w bosons and comparisons with ATLAS data taken. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-154:1–47, 2016.
- [112] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for new phenomena in dijet mass and angular distributions with the ATLAS detector at  $\sqrt{s} = 13$  TeV. *PHYSICS LETTERS. SECTION B*, 754:302–322, 2016.
- [113] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. 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. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-87:1–30, 2016.

- [114] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, Ventura A., and Et Al. The performance of the jet trigger for the ATLAS detector during 2011 data taking. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76-526:1–47, 2016.
- [115] Aad G, Chiodini G, Gorini E, Primavera M, Spagnolo S, and Ventura A. Search for TeV-scale gravity signatures in high-mass final states with leptons and jets with the ATLAS detector at  $\sqrt{s} = 13$  TeV. *PHYSICS LETTERS. SECTION B*, 760:520–537, 2016.
- [116] Baldini A. M., Bao Y., Baracchini E., Bemporad C., Berg F., Biasotti M., Boca G., Cattaneo P. W., Cavoto G., Cei F., Chiarello G., Chiri C., de Bari A., De Gerone M., D’Onofrio A., Dussoni S., Fujii Y., Galli L., Gatti F., Grancagnolo F., Grassi M., Graziosi A., Grigoriev D. N., Haruyama T., Hildebrandt M., Hodge Z., Ieki K., Ignatov F., Iwamoto T., Kaneko D., Kang Tae Im, Kettle P.-R., Khazin B. I., Khomutov N., Korenchenko A., Kravchuk N., Lim G. M. A., Mihara S., Molzon W., Mori Toshinori, Mtchedlishvili A., Nakaura S., Nicolò D., Nishiguchi H., Nishimura M., Ogawa S., Ootani W., M. Panareo, Papa A., Pepino A., Piredda G., Pizzigoni G., Popov A., Renga F., Ripiccini E., Ritt S., Rossella M., Rutar G., Sawada R., Sergiampietri F., Signorelli G., Tassielli G. F., Tenchini F., Uchiyama Y., Venturini M., Voena C., Yamamoto A., Yoshida K., You Z., and Yudin Yu. V. Measurement of the radiative decay of polarized muons in the meg experiment. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76:108–115, 2016.
- [117] Baldini A. M., Bao Y., Baracchini E., Bemporad C., Berg F., Biasotti M., Boca G., Cattaneo P. W., Cavoto G., Cei F., Chiarello G., Chiri C., Bari A. De, Gerone M. De, D’Onofrio A., Dussoni S., Fujii Y., Galli L., Gatti F., Grancagnolo F., Grassi M., Graziosi A., Grigoriev D. N., Haruyama T., Hildebrandt M., Hodge Z., Ieki K., Ignatov F., Iwamoto T., Kaneko D., Kang T. I., Kettle P.-R., Khazin B. I., Khomutov N., Korenchenko A., Kravchuk N., Lim G. M. A., Mihara S., Molzon W., Mori Toshinori, Mtchedlishvili A., Nakaura S., Nicol D., Nishiguchi H., Nishimura M., Ogawa S., Ootani W., M. Panareo, Papa A., Pepino A., Piredda G., Pizzigoni G., Popov A., Renga F., Ripiccini E., Ritt S., Rossella M., Rutar G., Sawada R., Sergiampietri F., Signorelli G., Tassielli G. F., Tenchini F., Uchiyama Y., Venturini M., Voena C., Yamamoto A., Yoshida K., You Z., and Yudin Yu. V. Muon polarization in the meg experiment: predictions and measurements. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76:–, 2016.
- [118] Baldini A. M., Bao Y., Baracchini E., Bemporad C., Berg F., Biasotti M., Boca G., Cascella M., Cattaneo P. W., Cavoto G., Cei F., Cerri C., Chiarello G., Chiri C., Corvaglia A., de Bari A., De Gerone M., Doke T., D’Onofrio A., Dussoni S., Egger J., Fujii Y., Galli L., Gatti F., Grancagnolo F., Grassi M., Graziosi A., Grigoriev D. N., Haruyama T., Hildebrandt M., Hodge Z., Ieki K., Ignatov F., Iwamoto T., Kaneko D., Kang T. I., Kettle P.-R., Khazin B. I., Khomutov N., Korenchenko A., Kravchuk N., Lim G. M. A., Maki A., Mihara S., Molzon W., Mori Toshinori, Morsani F., Mtchedlishvili A., Mzavia D., Nakaura S., Nard R., Nicol D., Nishiguchi H., Nishimura M., Ogawa S., Ootani W., Orito S., M. Panareo, Papa A., Pazzi R., Pepino A., Piredda G., Pizzigoni G., Popov A., Raffaelli F., Renga F., Ripiccini E., Ritt S., Rossella M., Rutar G., Sawada R., Sergiampietri F., Signorelli G., Simonetta M., Tassielli G. F., Tenchini F., Uchiyama Y., Venturini M., Voena C., Yamamoto A., Yoshida K., You Z., Yudin Yu. V., and Zanello D. Search for the lepton flavour violating decay  $\mu^+e^+\gamma$  with the full dataset of the meg experiment. *THE EUROPEAN PHYSICAL JOURNAL. C, PARTICLES AND FIELDS*, 76:434–463, 2016.

## 4 Theoretical Physics of fundamental interactions

- [1] Accomando E., Corianò C., Delle Rose L., Fiaschi J., Marzo C., and Moretti S. Higgses and heavy neutrinos in  $U(1)^2$  models: from the LHC to the GUT scale. *JHEP*, 1607, 2016.
- [2] Accomando E., Corianò C., Delle Rose L., Fiaschi J., Marzo C., and Moretti S. Phenomenology of minimal  $Z'$  models: from the LHC to the GUT scale. *EPJ Web Conf.*, 129, 2016.
- [3] Accomando E., Corianò C., Delle Rose L., Fiaschi J., Marzo C., and Moretti S. Search for  $Z'$ , vacuum (in)stability and hints of high-energy structures. *EPJ Web Conf.*, 129, 2016.
- [4] Alfinito E., Beccaria M., and Macorini G. Critical behavior in a stochastic model of vector mediated epidemics. *SCIENTIFIC REPORTS*, 6:27202–27212, 2016.

- [5] Anguiano M., Lallena A. M., Co' G., De Donno V., Grasso M., and Bernard R. N. Gogny interactions with tensor terms. *THE EUROPEAN PHYSICAL JOURNAL. A, HADRONS AND NUCLEI*, 52:1831–1838, 2016.
- [6] Anguiano M., Bernard R.N., Lallena A.M., Co' G., and De Donno V. Interplay between pairing and tensor effects in the N=82 even-even isotone chain. *NUCLEAR PHYSICS. A*, 955:181–193, 2016.
- [7] Bandyopadhyay P., Corianò C., and Costantini A. General analysis of the charged higgs sector of the  $Y = 0$  triplet-singlet extension of the MSSM at the LHC. *Phys. Rev. D*, 94, 2016.
- [8] Bandyopadhyay P., Corianò C., and Costantini A. Higgs bosons: discovered and hidden, in extended supersymmetric standard models at the LHC. *Pos Corfù 2015*, 2016.
- [9] Baroni A., Girlanda L., Pastore S., Schiavilla R., and Viviani M. Nuclear axial currents in chiral effective field theory. *PHYSICAL REVIEW C*, 93:015501–1–015501–32, 2016.
- [10] Beccaria M. On the large  $\hbar$ -deformations in the Nekrasov-Shatashvili limit of  $\mathcal{N} = 2^*$  sym. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–27, 2016.
- [11] Beccaria M., Fachechi A., and Macorini G. On the cusp anomalous dimension in the ladder limit of  $\mathcal{N} = 4$  sym. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–21, 2016.
- [12] Beccaria M., Fachechi A., and Macorini G. Virasoro vacuum block at next-to-leading order in the heavy-light limit. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–22, 2016.
- [13] Beccaria M., Fachechi A., Macorini G., and Martina L. Exact partition functions for deformed  $\mathcal{N} = 2$  theories with  $N_f = 4$  flavours. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–41, 2016.
- [14] Beccaria M. and Macorini G. Exact partition functions for the  $\Omega$ -deformed  $\mathcal{N} = 2^*$  su(2) gauge theory. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–25, 2016.
- [15] Beccaria M., Metafuno G., and Pallara D. The ground state of long-range Schrödinger equations and static  $q\bar{q}$  potential. *JOURNAL OF HIGH ENERGY PHYSICS*, 5:1–40, 2016.
- [16] Beccaria M., Nakach S., and Tseytlin A.A. On triviality of S-matrix in conformal higher spin theory. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–31, 2016.
- [17] Beccaria M. and Tseytlin A.A. Iterating free-field Ads/CFT: higher spin partition function relations. *JOURNAL OF PHYSICS. A, MATHEMATICAL AND THEORETICAL*, 49:295401–295426, 2016.
- [18] Beccaria M. and Tseytlin A.A. Conformal anomaly c-coefficients of superconformal 6d theories. *JOURNAL OF HIGH ENERGY PHYSICS*, 2016:1–33, 2016.
- [19] F. Capozzi, G. L. Fogli, E. Lisi, A. Marrone, D. Montanino, and A. Palazzo. Three-Neutrino Oscillation Parameters: Status and Prospects. *Adv. Ser. Direct. High Energy Phys.*, 25:145–155, 2015.
- [20] Capozzi F., Lisi E., Marrone A., Montanino D., and Palazzo A. Neutrino masses and mixings: Status of known and unknown  $3\nu$  parameters. *NUCLEAR PHYSICS. B*, 908:–, 2016.
- [21] Co' G., De Donno V., Anguiano M., and Lallena A. M. Continuum random phase approximation with finite-range interactions. *THE EUROPEAN PHYSICAL JOURNAL. A, HADRONS AND NUCLEI*, 52:1451–1458, 2016.
- [22] J. Conrad, M. Meyer, and D. Montanino. Axion-Like particles from extragalactic High Energy sources. *J. Phys. Conf. Ser.*, 718(5):052026, 2016.
- [23] Corianò C., Delle Rose L., and Marzo C. Constraints on abelian extensions of the standard model from two-loop vacuum stability and  $U(1)_{B-L}$ . *JHEP*, 1602, 2016.
- [24] Corianò C. and Frampton P. H. X-events and their interpretation. *Mod. Phys. Lett. A*, 31, 2016.

- [25] De Donno V., Co' G., Anguiano M., and Lallena A. M. Self-consistent continuum random-phase approximation with finite-range interactions for charge-exchange excitations. *PHYSICAL REVIEW C*, 93:0343201–03432013, 2016.
- [26] Evoli C., Leo M., Mirizzi A., and Montanino D. Reionization during the dark ages from a cosmic axion background. *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*, 2016:–, 2016.
- [27] Girlanda L., Kievsky Alejandro, Viviani Michele, and Marcucci Laura Elisa. Progress in the quest for a realistic three-nucleon force. *POS PROCEEDINGS OF SCIENCE*, CD15:103–1–103–10, 2016.
- [28] A. Marrone, F. Capozzi, E. Lisi, D. Montanino, and A. Palazzo. Three-neutrino mixing: status and prospects. *J. Phys. Conf. Ser.*, 718(6):062042, 2016.
- [29] Piarulli M., Girlanda L., Schiavilla R., Kievsky A., Lovato A., Marcucci L. E., Pieper Steven C., Viviani M., and Wiringa R. B. Local chiral potentials with intermediate states and the structure of light nuclei. *PHYSICAL REVIEW C*, 94:054007–1–054007–12, 2016.

## 5 Instrumentation and technical advances

- [1] Abbrescia M., Avanzini C., Baldini L., Ferroli R. Baldini, Batignani G., Bencivenni G., Bossini E., Chiavassa A., Cicalo C., Cifarelli L., Coccia E., Corvaglia A., De Gruttola D., De Pasquale S., Di Giovanni A., Dincecco M., Dreucci M., Fabbri F.L., Fattibene E., Ferraro A., Forster R., Frolov V., Galeotti P., Garbini M., Gemme G., Gnesi I., Grazzi S., Gustavino C., Hatzifotiadiu D., La Rocca P., Maggiora A., Maron G., Mazziotta M.N., Miozzi S., Nania R., Noferini F., Nozzoli F., M. Panareo, Panetta M.P., Paoletti R., Perasso L., Pilo F., Piragino G., Riggi F., Righini G.C., Rodriguez A.R., Sartorelli G., Scapparone E., Schioppa M., Scribano A., Selvi M., Serci S., Siddi E., Squarcia S., Stori L., Taiuti M., Terreni G., Vistoli M.C., Votano L., Williams M.C.S., Zani S., Zichichi A., and Zuyeuski R. A study of upward going particles with the extreme energy events telescopes. *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT*, 816:142–148, 2016.
- [2] Abbrescia M., Avanzini C., Baldini L., Ferroli R. Baldini, Batignani G., Bencivenni G., Bossini E., Chiavassa A., Cicalo C., Cifarelli L., Coccia E., Corvaglia A., Gruttola D. De, Pasquale S. De, Giovanni A. Di, D'incecco M., Dreucci M., Fabbri F.L., Fattibene E., Ferraro A., Frolov V., Galeotti P., Garbini M., Gemme G., Gnesi I., Grazzi S., Gustavino C., Hatzifotiadiou D., Rocca P. La, Licciulli F., Maggiora A., Rodriguez O. Maragoto, Maron G., Martelli B., Mazziotta M.N., Miozzi S., Nania R., Noferini F., Nozzoli F., M. Panareo, Panetta M.P., Paoletti R., Park W., Perasso L., Pilo F., Piragino G., Riggi F., Righini G.C., Sartorelli G., Scapparone E., Schioppa M., Scribano A., Selvi M., Serci S., Siddi E., Squarcia S., Stori L., Taiuti M., Terreni G., Visnyei O.B., Vistoli M.C., Votano L., Williams M.C.S., Zani S., Zichichi A., and Zuyeusky R. Recent results and performance of the multi-gap resistive plate chambers network for the eee project. In *Proceeding of the 13th Workshop on Resistive Plate Chambers and Related Detectors*, volume 11, pages C11005–C11005, BRISTOL – GBR, 22-26 Feb 2016. IOP Publishing.
- [3] Baldini A.M., Baracchini E., Berretta L., Bianucci S., Cavoto G., Chiarello G., Chiri C., Cei F., Corvaglia A., Dussoni S., Fahrni D., Galli L., Grancagnolo F., Grassi M., Hofer A., Hildebrandt M., Ignatov F., Miccoli A., Nicolò D., Orsini A., M. Panareo, Pepino A., Pinto C., Piredda G., Signorelli G., Raffaelli F., Recchia L., Renga F., Ripiccini E., Tassielli G., Tazzioli A., Tenchini F., Venturini M., Voena C., and Zullo A. A new cylindrical drift chamber for the meg ii experiment. *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT*, 824:–, 2016.
- [4] Chiarello G., Chiri C., Corvaglia A., Grancagnolo F., Miccoli A., M. Panareo, Pepino A., Pinto C., Primiceri P., Spedicato M., and Tassielli G.F. A new construction technique of high granularity and high transparency drift chambers for modern high energy physics experiments. *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT*, 824:–, 2016.



- [5] Chiarello G., Chiri C., Corvaglia A., Grancagnolo F., M. Panareo, Pepino A., Pinto C., and Tassielli G. A high performance front end electronics for drift chamber readout in meg experiment upgrade. *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT*, 824:336–339, 2016.
- [6] C. Chiodini et al. HV-CMOS detectors in BCD8 technology. *JINST*, 11(11):C11038, 2016.
- [7] Chiodini G., Perrino R., S. Spagnolo, et al. Diamond Particle Detectors for High Energy Physics. *Nucl. Part. Phys. Proc.*, 273-275:1023–1028, 2016.
- [8] G. Chiodini, S. Spagnolo, et al. A 3D diamond detector for particle tracking. *Nucl. Instrum. Meth.*, A824:402–405, 2016.
- [9] De Gruttola D., Abbrescia M., Avanzini C., Baldini L., Baldini Ferroli R., Batignani G., Bencivenni G., Bossini E., Bressan E., Chiavassa A., Cical C., Cifarelli L., Coccia E., Corvaglia A., De Pasquale S., Di Giovanni A., D’Incecco M., Dreucci M., Fabbri F.L., Fattibene E., Ferraro A., Forster R., Frolov V., Galeotti P., Garbini M., Gemme G., Gnesi I., Grazzi S., Gustavino C., Hatzifotiadou D., La Rocca P., Maggiora A., Maron G., Martelli B., Mazziotta M.N., Miozzi S., Noferini F., Nozzoli F., M. Panareo, Panetta M.P., Paoletti R., Perasso L., Pilo F., Piragino G., Riggi F., Righini G.C., Rodriguez A.R., Sartorelli G., Scapparone E., Schioppa M., Scribano A., Selvi M., Serci S., Siddi E., Squarcia S., Taiuti M., Terreni G., Vistoli M.C., Votano L., Williams M.C.S., Zani G., Zichichi A., and Zouyevski R. A multigap resistive plate chambers array for the extreme energy events project. In *CRIS 2015. Proceedings of the 9th Cosmic Ray International Seminar*, volume 279-281, pages 31–38, Amsterdam – NLD, 14-16 Sep 2015 2016. Elsevier B.V.
- [10] J. Lange, Chiodini G., et al. Beam tests of an integrated prototype of the ATLAS Forward Proton detector. *JINST*, 11(09):P09005, 2016.
- [11] Rocca P. La, Abbrescia M., Avanzini C., Baldini L., Ferroli R. Baldini, Batignani G., Bencivenni G., Bossini E., Chiavassa A., Cical C., Cifarelli L., Coccetti F., Coccia E., Corvaglia A., Gruttola D. De, Pasquale S. De, Giovanni A. Di, D’Incecco M., Dreucci M., F. L.Fabbri, Fattibene E., Ferraro A., Frolov V., Galeotti P., Garbini M., Gemme G., Gnesi I., Grazzi S., Gustavino C., Hatzifotiadou D., Liciulli F., Maggiora A., Rodriguez O. Maragoto, Maron G., Martelli B., M. N.Mazziotta, Miozzi S., Nania R., Noferini F., Nozzoli F., M. Panareo, Panetta M., Paoletti R., Park W., Perasso L., Pilo F., Piragino G., Riggi F., Righini G.C., Rizzi M., Sartorelli G., Scapparone E., Schioppa M., Scribano A., Selvi M., Serci S., Siddi E., Squarcia S., Stori L., Taiuti M., Terreni G., Visnyei O.B., M. C.Vistoli, Votano L., Williams M.C.S., Zani S., Zichichi A., and Zuyeuski R. The eee project: a sparse array of telescopes for the measurement of cosmic ray muons. *JOURNAL OF INSTRUMENTATION*, 11:C12056–C12068, 2016.

## 6 Interdisciplinary and Technological Applications

- [1] Accorsi G., Claramunt R. M., Clarkson G.J., Gigli G., Farrán M.A., Listorti A., and Roiati V. Photoinduced processes in macrocyclic isoalloxazineanthracene systems. *Journal of Photochemistry and Photobiology: Chemistry*, 314, 2016.
- [2] Alfinito E., Reggiani L., Cataldo R., De Nunzio G., Giotta L., and Guascito M. M. Proteotronics: Application to human 17-40 and bacteriorhodopsin receptors , in proceedings of the 1st international conference on complex information systems. *COMPLEXIS 2016*, 1:32–38, 2016.
- [3] Aliev A., Arlin J.B., Beljonne D., Castet F., Chattopadhyay B., Ciesielski A., Colella S., Cornil J., Dudenko D., Geerts Y. H., Hadji R., Kennedy A.R., Lemaire V., Oliver Y., Osella S., Ruzié C., Sakurai T., Samorí P., Sanguinet L. and Schweicher G., Seki S., and Tsutsui Y. Unraveling unprecedented charge carrier mobility through structure property relationship of four isomers of didodecyl[1] benzothieno[3,2-b][1] benzothiophene. *Advanced Materials*, 4, 2016.

- [4] A. Aloisi, E. Tarentini, A. Ferramosca, V. Zara, and R. Rinaldi. Microoxygraph Device for Biosensoristic Applications. *JOURNAL OF SENSORS*, 2016.
- [5] Altamura D., Colella S., Giannini C., Gigli G., Manfredi N., Rizzo A., and Trifiletti V. Engineering TiO<sub>2</sub>/perovskite planar heterojunction for hysteresis-less solar cells. *Advanced Materials Interfaces*, 3, 2016.
- [6] Arimondo E., Camposeo A., Ciampini D., Fogliano F., Fuso F., Pisignano D., and Ortu A. Alq<sub>3</sub>-coated silicon nanomembranes for cavity optomechanics. *Proceedings SPIE 9922*, 2016.
- [7] Armaroli N., Bonifazi D., Colella S., Listorti A., Miletic T., Pavoni E., Rizzo A., and Trifiletti V. Covalently functionalized swcnts as tailored p-type dopants for perovskite solar cells. *The Journal of Physical Chemistry Letters*, 8:27966–27973, 2016.
- [8] Bernabei M. and Bontadi J., Quarta G., Calcagnile L., and Diodato M. The baptistry of Saint John in Florence: the scientific dating of the timber structure of the dome. *International Journal of Architectural Heritage*, 10, 2016.
- [9] Bernal M. Mar, de Juan A., Fernández-Blázquez J.P., López-Moreno A., Moffa M., Nieto-Ortega B., Pisignano D., Pérez E.M., and Vilatela J.J. Mechanical interlocking enhances the performance of carbon nanotubes as polymer fillers. *ACS Nano*, 10, 2016.
- [10] Bertasius V., Giansante C., Gigli G., Gulbinas V., and Rizzo A. Charge carrier generation and extraction in hybrid polymer/quantum dot solar cells. *The Journal of Physical Chemistry*, 120, 2016.
- [11] M. Bianco, A. Sonato, A. De Girolamo, M. Pascale, F. Romanato, R. Rinaldi, and V. Arima. An aptamer-based SPR-polarization platform for high sensitive OTA detection. *SENSORS AND ACTUATORS B-CHEMICAL*, 241:314–320, 2017.
- [12] Bravard J.P., Mostafa A., Davoli P., Adelsberger K.A., Ballet P., Garcier R., Calcagnile L., and Quarta G. Construction and deflation of irrigation soils from the pharaonic to the roman period at Amheida (Trimithis), Dakhla depression, egyptian western desert. *Géomorphologie : relief, processus, environnement*, 22, 2016.
- [13] Broitman E., Flores-Ruiz F. J., Di Giulio M., Gontad F., Lorusso A., and Perrone A. Microstructural, nanomechanical, and microtribological properties of pb thin films prepared by pulsed laser deposition and thermal evaporation techniques. *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY. A. VACUUM, SURFACES, AND FILMS*, 34:021505–021505, 2016.
- [14] Bucci C., De Luca M., Moffa M., Paiano A., Persano L., Pisignano D., Portone A., Sallustio F., Schena F.P., and Sciancalepore A.G. Micropatterning control of tubular commitment in human adult renal stem cell. *Biomaterials*, 94, 2016.
- [15] Buccolieri A., Buccolieri G., and Castellano A. X-ray fluorescence for the study of the patinas on an outdoor bronze monument. *International Journal of Conservation Science*, 7:1009–1022, 2016.
- [16] Calzolari A., Catellani A., Dagdeviren C., Guo X., Huang Y., Persano L., and Pisignano D. Shear piezoelectricity in poly(vinylidene fluoride-co-trifluoroethylene): full piezotensor coefficients by molecular modeling, biaxial transverse response, and use in suspended energy-harvesting nanostructures. *Advanced Materials*, 28, 2016.
- [17] Camposeo A., Castro-Lopez M., Gaio M., Moffa M., Pisignano D., and Sapienza R. Modal coupling of single photon emitters within nanofibre waveguides. *ACS Nano*, 10, 2016.
- [18] Camposeo A., Fasano V., Moffa M., Persano L., and Pisignano D. Control of photon transport properties in nanocomposite nanowires. *Proceedings SPIE*, 2016.
- [19] Camposeo A., Gucciardi P.G., Magrì D., Maragò O.M., Moffa M., Persano L., Pisignano D., and Spadaro D. Surface-enhanced raman spectroscopy in 3D electrospun nanofiber mats coated with gold nanorods. *Analytical and bioanalytical chemistry*, 408, 2016.

- [20] Camposeo A., Manco R., Moffa M., Pisignano D., and Romano L. Core-shell electrospun fibers encapsulating chromophores or luminescent proteins for microscopically controlled molecular release. *Molecular pharmaceutics*, 13, 2016.
- [21] Cannavale A., Colella S., Cossari P., Eperon G.E., Fiorito F., Gigli G., Listorti A., and Snaith H.J. Forthcoming perspectives of photoelectrochromic devices: a critical review. *Energy & Environmental Science*, 9:2682–2719, 2016.
- [22] Capodilupo Agostina L and Fabiano Eduardo and De Marco Luisa and Ciccarella Giuseppe and Gigli G. and Martinelli Carmela and Cardone Antonio [1]Benzothieno[3,2-b]benzothiophene-Based Organic Dyes for Dye-Sensitized Solar Cells *JOURNAL OF ORGANIC CHEMISTRY* 81, 3235, 2016.
- [23] Capodilupo Agostina-Lina and Vergaro Viviana and Accorsi Gianluca and Fabiano Eduardo and Baldassarre Francesca and Corrente Giuseppina Anna and Gigli G. and Ciccarella Giuseppe A series of diphenylamine-fluorenone derivatives as potential fluorescent probes for neuroblastoma cell staining *TETRAHEDRON* 72, 2920–2928, 2016.
- [24] Capodilupo A.-L. and Giannuzzi R. and Corrente G.A. and De Marco L. and Fabiano E. and Cardone A. and Gigli G.. and Ciccarella G. Synthesis and photovoltaic performance of dibenzofulvene-based organic sensitizers for DSSC *TETRAHEDRON* 72, 5788–5797, 2016.
- [25] Capodilupo Agostina L. and De Marco Luisa and Corrente Giuseppina A. and Giannuzzi Roberto and Fabiano Eduardo and Cardone Antonio and Gigli G.. and Ciccarella Giuseppe Synthesis and characterization of a new series of dibenzofulvene based organic dyes for DSSCs *DYES AND PIGMENTS*, 130, 79–89, 2016.
- [26] Carallo S., Colella S., Gambino S., Genco A., Gigli G., Guerra V.LP., Listorti A., Mariano F., Mazzeo M., and Simeone D. Fully vapor; deposited heterostructured light; emitting diode based on organo; metal halide perovskite. *Advanced Electronic Materials*, 2016.
- [27] Carbone C., Manno D., Serra A., Musumeci T., Pepe V., Tisserand C., and Puglisi G. Innovative hybrid vs polymeric nanocapsules: The influence of the cationic lipid coating on the 4S, colloids and surfaces B: Biointerfaces. *Elsevier ???*, 141, 2016.
- [28] Carluccio S., Moffa M., Netti G.S., Pisignano D., Praticchizzo C., Romano L., and Sciancalepore A.G. Bioactive nanofiber matrices functionalized with fibronectin-mimetic peptides driving the alignment and tubular commitment of adult renal stem cells. *Macromolecular Chemistry and Physics*, 217, 2016.
- [29] Castellano A., M. Donativi, R. Rud, G. De Nunzio, M Riva, A Iadanza, L. Bertero, M. Rucco, L. Bello, R Soffietti, and A Falini. Evaluation of low-grade glioma structural changes after chemotherapy using dti-based histogram analysis and functional diffusion maps. *European Radiology*, 26:1263–1273, 2016.
- [30] Chiriaco M. S., Bianco M., Amato F., Primiceri E., Ferrara F., Arima V., and Maruccio G. Fabrication of interconnected multilevel channels in a monolithic su-8 structure using a lor sacrificial layer. *MICROELECTRONIC ENGINEERING*, 164:30–35, 2016.
- [31] Chiriaco M.S., Primiceri E., De Feo F., Montanaro A., Monteduro A.G., Tinelli A., Megha M., Carati D., and Maruccio G. Simultaneous detection of multiple lower genital tract pathogens by an impedimetric immunochip. *BIOSENSORS & BIOELECTRONICS*, 79:9–14, 2016.
- [32] Cipolla M.P., Di Carlo G., Listorti A., Magnano G., Marinotto D., Manca M., Mussini P.R., Orbelli Biroli A., Pizzotti M., Tessore F., and Trifiletti V. Influence of alkoxy chain envelopes on the interfacial photoinduced processes in tetraarylporphyrin-sensitized solar cells. *Physical Chemistry Chemical Physics*, 18, 2016.
- [33] Ciraci C., Della Sala F., Jurga R., and Pisignano D. Enhancement of radiative processes in nanofibers with embedded plasmonic nanoparticles. *Optics letters*, 41, 2016.

- [34] Citti Cinzia and Battisti Umberto M and Ciccarella Giuseppe and Maiorano Vincenzo and Gigli G. and Abbate Sergio and Mazzeo Giuseppe and Castiglioni Ettore and Longhi Giovanna and Cannazza Giuseppe Analytical and preparative enantioseparation and main chiroptical properties of Iridium(III) bis(4,6-difluorophenylpyridinato)picolinato *JOURNAL OF CHROMATOGRAPHY A*, 1467, 335, 2016.
- [35] Colella S., Dell’Elce S., Esposito Corcione C., Giuri A., Kovtun A., Liscio A., Listorti A., Masi S., and Rizzo A. and Treossi E. Cooperative effect of go and glucose on pedot:pss for high voc and hysteresis-free solution-processed perovskite solar cells. *Advanced Functional Materials*, 26:6985–6994, 2016.
- [36] Colella S., Esposito Corcione C., Gigli G., Giuri A., Liscio A., Listorti A., Malitesta C., Masi S., Palermo V, Rella S., Rizzo A., and Treossi E. Uv reduced graphene oxide pedot: Pss nanocomposite for perovskite solar cells. *IEEE Transactions on Nanotechnology*, 15:725–730, 2016.
- [37] Colella S., Esposito Corcione C., Giuri A., Listorti A., and Rizzo A. Pedot: Pss/go nanocomposites: Determination of the aspect ratio by indirect measurements. *AIP Conference Proceedings*, 1736, 2016.
- [38] Colella S., Gigli G., Mazzeo M., Listorti A., and Rizzo A. The bright side of perovskites. *The Journal of Physical Chemistry Letters*, 7:4322–4334, 2016.
- [39] Cossari P., Cannavale A., Gambino S., and Gigli G. Room temperature processing for solid-state electrochromic devices on single substrate: From glass to flexible plastic. *SOLAR ENERGY MATERIALS AND SOLAR CELLS*, 155:411–420, 2016.
- [40] De Feudis M., Caricato A.P., Chiodini G., Martino M., Maruccio G., Monteduro A.G., Ossi P.M., Perrino R., and Spagnolo S. Diamond detectors with electrodes graphitized by means of laser. *IL NUOVO CIMENTO C*, 39:254–257, 2016.
- [41] De Feudis M., Caricato A.P., Chiodini G., Martino M., Alemanno E., Maruccio G., Monteduro A.G., Ossi P.M., Perrino R., and Spagnolo S. Characterization of surface graphitic electrodes made by excimer laser on cvd diamond. *DIAMOND AND RELATED MATERIALS*, 65:137–143, 2016.
- [42] De Marco M, Krasa J, Cikhardt J, Pfeifer M, Krousky E, Margarone D, Ahmed H, Borghesi M, Kar S, Giuffrida L, Vrana R, Velyhan A, Limpouch J, Korn G, Weber S, Velardi L, Delle Side D., Nassisi V, and Ullschmied J. Measurement of electromagnetic pulses generated during interactions of high power lasers with solid targets. *JOURNAL OF INSTRUMENTATION*, 11, 2016
- [43] Valeria De Matteis, Mariafrancesca Cascione, Virgilio Brunetti, Chiara Cristina Toma, and Rosaria Rinaldi. Toxicity assessment of anatase and rutile titanium dioxide nanoparticles: The role of degradation in different pH conditions and light exposure. *TOXICOLOGY IN VITRO*, 37:201–210, 2016.
- [44] Debellis D., Giansante C., Gigli G., Grisorio R., and Suranna G.P. The dynamic organic/inorganic interface of colloidal pbs quantum dots. *Angewandte Chemie International Edition*, 55, 2016.
- [45] Loretta L. Del Mercato, Flora Guerra, Gianpiero Lazzari, Concetta Nobile, Cecilia Bucci, and Rosaria Rinaldi. Biocompatible multilayer capsules engineered with a graphene oxide derivative: synthesis, characterization and cellular uptake. *NANOSCALE*, 8(14):7501–7512, 2016.
- [46] Loretta L. Del Mercato, Laura Gioia Passione, Daniela Izzo, Rosaria Rinaldi, Alessandro Sannino, and Francesca Gervaso. Design and characterization of microcapsules-integrated collagen matrixes as multifunctional three-dimensional scaffolds for soft tissue engineering. *JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS*, 62:209–221, 2016.
- [47] Delle Side D., Giuffreda E, and Nassisi V. The critical distance in LASER-induced plasmas: an operative definition. *JOURNAL OF INSTRUMENTATION*, 11, 2016.
- [48] Delle Side D., Specchia V, D’Attis S, Giuffreda E, Quarta G, Calcagnile L, Bozzetti MP, and Nassisi V. Stressing biological samples with pulsed magnetic fields: physical aspects and experimental results. *JOURNAL OF INSTRUMENTATION*, 11, 2016.

- [49] Delle Side D., Specchia V., DAttis S., Giuffreda E., Quarta G. and Calcagnile L., Bozzetti M.P., and Nassisi V. Stressing biological sample with pulsed magnetic fields: physical aspects and experimental aspects. *Journal of Instrumentation, IOP Publishing*, 11, 2016.
- [50] Chiara Dionisi, Nemany Hanafy, Concetta Nobile, Maria Luisa De Giorgi, Ross Rinaldi, Sergio Casciaro, Yuri M. Lvov, and Stefano Loporatti. Halloysite Clay Nanotubes as Carriers for Curcumin: Characterization and Application. *IEEE TRANSACTIONS ON NANOTECHNOLOGY*, 15(5):720–724, 2016.
- [51] Giampetruzzi Lucia and Blasi Laura and Quarta Alessandra and Argentiere Simona and Cella Claudia and Salvatore Luca and Madaghiele Marta and Gigli G. and Sannino Alessandro Poly(lactide-co-glycolide) nanoparticles embedded in a micro-patterned collagen scaffold for neuronal tissue regeneration *INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS* <http://dx.medra.org/10.1080/00914037.2016.1217533>
- [52] Giuffreda E, Delle Side D., Krasa J, and Nassisi V. Polarization of plastic targets by LASER ablation. *JOURNAL OF INSTRUMENTATION*, 11, 2016.
- [53] Gontad F., Caricato A. P., Manera M. G., Colombelli A., Resta V., Taurino A., Cesaria M., Leo C., Convertino A., Klini A., Perrone A., Rella R., and Martino M. 3D plasmonic transducer based on gold nanoparticles produced by laser ablation on silica nanowires. *APPLIED PHYSICS. A, MATERIALS SCIENCE & PROCESSING*, 122:1–6, 2016. article number: 539.
- [54] Gontad F., Lorusso A., Klini A., Broitman E., Perrone A., and Fotakis C. Fabrication of nb/pb structures through ultrashort pulsed laser deposition. *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY. A. VACUUM, SURFACES, AND FILMS*, 34:041501–041501, 2016
- [55] Gontad F., Lorusso A., Manousaki A., Klini A., and Perrone A. Morphology and structure of nb thin films grown by pulsed laser deposition at different substrate temperatures. *JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY*, 32:1192–1196, 2016.
- [56] N. A. N. Hanafy, A. Quarta, M. M. Ferraro, A. Gaballo, L. Dini, C. Nobile, M. L. De Giorgi, S. Carallo, C. Citti, G. Cannazza, A. L. Capodilupo, G. Ciccarella, R. Rinaldi, G. Giannelli, and S. Loporatti. Polymeric nano-micelles as novel tools for LY2157299 cancer cells delivery. *EUROPEAN JOURNAL OF CLINICAL INVESTIGATION*, 46(1, SI):30, 2016.
- [57] Nemany A. N. Hanafy, Maria Luisa De Giorgi, Concetta Nobile, Mariafrancesca Cascione, Ross Rinaldi, and Stefano Loporatti. CaCO<sub>3</sub> Rods as Chitosan-Polygalacturonic Acid Carriers for Bromopyruvic Acid Delivery. *SCIENCE OF ADVANCED MATERIALS*, 8(3):514–523, 2016.
- [58] Nemany A. Hanafy, Marzia Maria Ferraro, Antonio Gaballo, Luciana Dini, Vittorianna Tasco, Concetta Nobile, Maria Luisa De Giorgi, Sonia Carallo, Ross Rinaldi, and Stefano Loporatti. Fabrication and characterization of ALK1fc-loaded fluoro-magnetic nanoparticles for inhibiting TGF beta 1 in hepatocellular carcinoma. *RSC ADVANCES*, 6(54):48834–48842, 2016.
- [59] Lattante S., Cretì A., Lomascolo M., and Anni M. On the correlation between morphology and amplified spontaneous emission properties of a polymer: Polymer blend. *ORGANIC ELECTRONICS*, 29:44–49, 2016.
- [60] Lauricella M., Pisignano D., Pontrelli G., and Succi S. Dynamic mesh refinement for discrete models of jet electro-hydrodynamics. *Journal of Computational Science*, 17, 2016.
- [61] Lauricella M., Pisignano D., and Succi S. Three-dimensional model for electrospinning processes in controlled gas counterflow. *The Journal of Physical Chemistry*, 120, 2016.
- [62] Lay-Ekuakille A. and Griffo G. and Massaro A. and Spano F. and Gigli G. Experimental characterization of an implantable neuro-packaging for EEG signal recording and measurement. *MEASUREMENT* 79, 321–330, 2016.
- [63] Lorusso A., Anni M., Caricato A.P., Gontad F., Perulli A., Taurino A., Perrone A., and Chiadroni E. Deposition of y thin films by nanosecond uv pulsed laser ablation for photocathode application. *THIN SOLID FILMS*, 603:441–445, 2016.

- [64] Lorusso A., Gontad F., Caricato A. P., Chiadroni E., Broitman E., and Perrone A. Structural and morphological properties of metallic thin films grown by pulsed laser deposition for photocathode application. *APPLIED PHYSICS. A, MATERIALS SCIENCE & PROCESSING*, 122:1–5, 2016.
- [65] Lorusso A., Gontad F., Solombrino L., Chiadroni E., Broitman E., and Perrone A. Tight comparison of mg and y thin film photocathodes obtained by the pulsed laser deposition technique. *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT*, 836:57–60, 2016.
- [66] Macchia M., Resta V., Quarta G., and Calcagnile L. Precious coral non-destructive characterization by Raman and XRF spectroscopy. *X-RAY SPECTROMETRY*, 45:281–287, 2016.
- [67] Macchia M., Resta V., and Quarta G. and Calcagnile L. Precious coral non-destructive characterization by raman spectroscopy and x-ray fluorescence. *X-Ray Spectrometry*, 45, 2016.
- [68] Maggiore Antonio and Pugliese Marco and Di Maria Francesca and Accorsi Gianluca and Gazzano Massimo and Fabiano Eduardo and Tasco Vittorianna and Esposito Marco and Cuscun Massimo and Blasi Laura and Capodilupo Agostina and Ciccarella Giuseppe and Gigli G.. and Maiorano Vincenzo Exploiting Photo- and Electroluminescence Properties of FIrpic Organic Crystals *INORGANIC CHEMISTRY* 55, 6532–6538, 2016.
- [69] Marianecchi C., Di Marzio L., Del Favero E., Cantù L., Brocca P. and Rondelli V., Rinaldi R., Dini L., Serra A., and Decuzzi P. Niosomes as drug nanovectors: multiscale ph-dependent structural response. *Langmuir*, 32, 2016.
- [70] Elisabetta Marulli, Alessandra Aloisi, Paolo Di Giuseppe, and Rosaria Rinaldi. Micro and Nanotechnology for Early Diagnosis and Detection of Rheumatic Diseases-molecular Markers. *BIOCHIP JOURNAL*, 10(3):189–197, 2016.
- [71] Monteduro A. G., Ameer Z., Rizzato S., Martino M., Caricato A.P., Tasco V., Lekshmi I.C., Hazarika A., Choudhury D., Sarma D.D., and Maruccio G. Investigation of high-kyttrium copper titanate thin films as alternative gate dielectrics. *JOURNAL OF PHYSICS D. APPLIED PHYSICS*, 49:405303–405309, 2016.
- [72] Monteduro A.G., Ameer Z., Martino M., Caricato A.P., Tasco V., Lekshmi I.C., Rinaldi R., Hazarika A., Choudhury D., Sarma D.D, and Maruccio G. Dielectric investigation of high-k yttrium copper titanate thin films. *JOURNAL OF MATERIALS CHEMISTRY. C*, 4:1080–1087, 2016.
- [73] Anna Grazia Monteduro, Zoobia Ameer, Maurizio Martino, Anna Paola Caricato, Vittorianna Tasco, I. C. Lekshmi, Ross Rinaldi, Abhijit Hazarika, Debraj Choudhury, D. D. Sarma, and Giuseppe Maruccio. Dielectric investigation of high-k yttrium copper titanate thin films. *JOURNAL OF MATERIALS CHEMISTRY C*, 4(5):1080–1087, 2016.
- [74] Nissim N, Belloni F, Eliezer S, Delle Side D., and Val JMM. Toward a measurement of alpha-decay lifetime change at high pressure: The case of  $^{241}\text{Am}$ . *PHYSICAL REVIEW C*, 94, 2016.
- [75] Nassisi V, Delle Side D., Monteduro L, and Giuffreda E. Mapping of acceleration field in FSA configuration of a LIS. *JOURNAL OF INSTRUMENTATION*, 11, 2016.
- [76] Pattathil P., Scarfiello R., Giannuzzi R., Veramonti G., Sibillano T., Qualtieri A., Giannini C., Cozzoli P., and Manca M. Near-infrared selective dynamic windows controlled by charge transfer impedance at the counter electrode. *NANOSCALE*, 8:20056–20065, 2016.
- [77] Persano L., Moffa M., Fasano V., Montinaro M., Morello G., Resta V., Spadaro D., Gucciardi P. G., Maragò O. M., Camposeo A., and Pisignano D. Optimization of electrospinning techniques for the realization of nanofiber plastic lasers. In *Proceedings of SPIE*, volume 9745, pages 97450R–97450R, Bellingham, WA – USA, FEB 15-17, 2016. SPIE-INT SOC OPTICAL ENGINEERING.
- [78] Pousset J., Farella I., Gambino S., and Cola A. Subgap time of flight: A spectroscopic study of deep levels in semi-insulating cdte:cl. *JOURNAL OF APPLIED PHYSICS*, 119:105701–1–105701–6, 2016.

- [79] Primiceri E., Chiriaco M.S., De Feo F., Santovito E., Fusco V., and Maruccio G. A multipurpose biochip for food pathogen detection. *ANALYTICAL METHODS*, 8:3055–3060, 2016.
- [80] Rocco C., Sibillano T., Belviso D. B., Scarfiello R., Hanson J. C., Dooryhee E., Manca M., Cozzoli P., and Giannini C. Static and dynamical structural investigations of metal-oxide nanocrystals by powder x-ray diffraction: Colloidal tungsten oxide as a case study. *CHEMPHYSICHEM*, 17:699–709, 2016.
- [81] Fabio Sallustio, Alessandra Aloisi, Claudia Curci, Chiara Cristina Toma, Elisabetta Marulli, Grazia Serino, Sharon Natasha Cox, Giuseppe De Palma, Rosaria Rinaldi, and Francesco Paolo Schena. INHIBIN A AND DECORIN SECRETED BY ADULT RENAL STEM/PROGENITOR CELLS THROUGH THE TLR2 ENGAGEMENT INDUCE RENAL TUBULAR CELL REGENERATION. *NEPHROLOGY DIALYSIS TRANSPLANTATION*, 31(1):48, 2016. 53rd ERA-EDTA Congress, Vienna, AUSTRIA, MAY 21-24, 2016.
- [82] Scarfiello R., Nobile C., and Cozzoli P. Colloidal magnetic heterostructured nanocrystals with asymmetric topologies: Seeded-growth synthetic routes and formation mechanisms. *FRONTIERS IN MATERIALS*, 3, art. 56:1–29, 2016.
- [83] Scorrano G., Mazzuca C. and Valentini F., Scano G., Buccolieri A., Giancane G., Manno D., Valli L., Mallegni F., and Serra A. The tale of henry vii: a multidisciplinary approach to determining the post-mortem practice, archaeological and anthropological sciences. *Springer Berlin Heidelberg ???*, 2016.

## 7 Theoretical condensed matter and statistical physics

- [1] Alfinito E., Pousset J. and Reggiani L., Current-voltage characteristics of seven-helix proteins from a cubic array of amino acids, *PHYSICAL REVIEW E*. 93, 062401, 2016.
- [2] Reggiani L., Alfinito E. and Kuhn T., Duality and reciprocity of fluctuation-dissipation relations in conductors, *PHYSICAL REVIEW E*. 94, 032112, 2016.

## 8 Physics of the Atmosphere and of the Earth

- [1] Barragan, R., Romano, S., Sicard, M., Burlizzi, P., Perrone, M.R., Comern, A.: Estimation of mineral dust direct radiative forcing at the EARLINET site of Lecce, Italy, during the ChArMEx/ADRIMED summer 2013 campaign: impact of radiative transfer model spectral resolutions. *J. GEOPHYS. RES. ATMOS.* 121 (2016)
- [2] Chaikovskiy Anatoli, Dubovik Oleg, Holben Brent, Bril Andrey, Goloub Philippe, Tanr Didier, Pappalardo Gelsomina, Wandinger Ulla, Chaikovskaya Ludmila, Denisov Sergey, Grudo Jan, Lopatin Anton, Karol Yana, Lapyonok Tatsiana, Amiridis Vassilis, Ansmann Albert, Apituley Arnoud, Allados-Arboledas Lucas, Biniotoglou Ioannis, Boselli Antonella, D’Amico Giuseppe, Freudenthaler Volker, Giles David, Granados-Mu noz Mara José, Kokkalis Panayotis, Nicolae Doina, Oshchepkov Sergey, Papayannis Alex, Perrone Maria Rita, Pietruczuk Alexander, Rocadenbosch Francesc, Sicard Michael, Slutsker Ilya, Talianu Camelia, De Tomasi F., Tsekeri Alexandra, Wagner Janet, and Wang Xuan. Lidar-radiometer inversion code (liric) for the retrieval of vertical aerosol properties from combined lidar/radiometer data: development and distribution in earlinet. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 9:1181–1205, 2016.
- [3] Di Rienzo F., Girolami M., Chessa S., Paparella F., and Caruso A. Signals from the depths: Properties of percolation strategies with the argo dataset. *COMPUTERS AND COMMUNICATION (ISCC)*, 2016 IEEE Symposium on. IEEE, 2016.
- [4] Mona, L., Alados Arboledas, L., Amiridis, V., Amodeo, A., Apituley, A., Balis, D., Comeron, A., Iarlori, M., Linné, H., Nicolae, D., Papayannis, A., Perrone, M.R., Rizi, V., Siomos, N., Wandinger, U., Wang, X., Pappalardo, G.: EARLINET: 12-YEAR OF AEROSOL PROFILING OVER EUROPE. em EPJ Web of Conferences 119, 19002 (2016).

- [5] F. Paparella, C. Ferracini, A. Portaluri, A. Manzo, and A. Alma. Biological control of the chestnut gall wasp with *t. sinensis*: A mathematical model. *ECOLOGICAL MODELLING*, 338, 2016.
- [6] Paparella F. Turbulence, horizontal convection, and the ocean’s meridional overturning circulation. *SPRINGER INTERNATIONAL PUBLISHING* ??, 15, 2016.
- [7] M. R. Perrone, Alessandra Genga, Maria Siciliano, Tiziana Siciliano, Fabio Paladini, Pasquale Burlizzi, Saharan Dust impact on the chemical composition of PM10 and PM1 samples over south-eastern Italy, *Arabian Journal of Geosciences* 02/2016; 9(2).
- [8] Perrone M. R. and Burlizzi P., Mediterranean aerosol typing by integrating three-wavelength lidar and sun photometer measurements, *ENVIRON. SCI. POLLUT. RES.*, (2016)
- [9] Perrone, M.R., Burlizzi, P.: AEROSOL TYPING BY 3-WAVELENGTH ELASTIC LIDAR SIGNALS OVER THE CENTRAL MEDITERRANEAN. *EPJ WEB OF CONFERENCES* 119, 23008 (2016)
- [10] Romano, S., Burlizzi, P., Perrone, M.R.: Experimental determination of short- and long-wave dust radiative effects in the Central Mediterranean and comparison with model results. *ATMOS. RES.* 171, 5-20 (2016)
- [11] Romano, S., Perrone, M.R. Impact of desert dust events on short- and long-wave radiation at the surface over south-eastern Italy. *ARAB J GEOSCI* 9:175 (2016)
- [12] Romano, S., Perrone, M.R.: Mineral dust impact on short- and long-wave radiation and comparison with CERES measurements. *EPJ Web of Conferences* 119, 08005 (2016)
- [13] M. Sicard, R. Barragan, C. Muoz-Porcar, A. Comern, M. Mallet, F. Dulac, J. Pelon, L. Alados Arboledas, A. Amodeo, A. Boselli, J. A. Bravo-Aranda, G. D’amico, M. J. Granados Muñoz, G. Leto, J. L. Guerrero Rascado, F. Madonna, L. Mona, G. Pappalardo, M. R. Perrone, P. Burlizzi, F. Rocadenbosch, A. Rodríguez-Gómez, S. Scollo, N. Spinelli, G. Titos, X. Wang, and R. Zanmar Sanchez Contribution of EARLINET/ACTRIS to the summer 2013 Special Observing Period of the ChArMEx project: monitoring of a Saharan dust event over the western and central Mediterranean. *Int. J. Remote Sens.* 19, 4698-4711 (2016)
- [14] Wandinger Ulla, Freudenthaler Volker, Baars Holger, Amodeo Aldo, Engelmann Ronny, Mattis Ina, Gross Silke, Pappalardo Gelsomina, Giunta Aldo, D’Amico Giuseppe, Chaikovsky Anatoli, Osipenko Fiodor, Slesar Alexander, Nicola Doina, Belegante Livio, Talianu Camelia, Serikov Ilya, Linn Holger, Jansen Friedhelm, Apituley Arnoud, Wilson Keith M., de Graaf Martin, Trickl Thomas, Giehl Helmut, Adam Mariana, Comern Adolfo, Muñoz-Porcar Constantino, Rocadenbosch Francesc, Sicard Michal, Toms Sergio, Lange Diego, Kumar Dhiraj, Pujadas Manuel, Molero Francisco, Fernández Alfonso J., Alados-Arboledas Lucas, Bravo-Aranda Juan Antonio, Navas-Guzmán Francisco, Guerrero-Rascado Juan Luis, Granados-Muñoz Mara José, Preler Jana, Wagner Frank, Gausa Michael, Grigorov Ivan, Stoyanov Dimitar, Iarlori Marco, Rizi Vincenzo, Spinelli Nicola, Boselli Antonella, Wang Xuan, Lo Feudo Teresa, Perrone Maria Rita, De Tomasi F., and Burlizzi Pasquale. Earlinet instrument intercomparison campaigns: overview on strategy and results. *ATMOSPHERIC MEASUREMENT TECHNIQUES*, 9:1001–1023, 2016.

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- [1] Rossi A. Alternatives to Positivism: Gaston Bachelard and Hélène Metzger *Proceedings of XXXIV Annual Conference of Società Italiana degli Storici della Fisica e dell’Astronomia, SISFA 2015* Edited by P. Tucci, Pavia University Press, p. 157-159, 2016.
- [2] Arcangelo Rossi Cosimo De Giorgi and the development of natural sciences in the South of Italy *Proceedings of XXXV Annual Conference of Società Italiana degli Storici della Fisica e dell’Astronomia, SISFA 2015* Edited by S. Esposito, Pavia University Press, p. 211-215, 2016.
- [3] Rossi A., Buttaro C. Franco Rasetti, a scientist across Physics and Biology, *Franco Rasetti, a scientist across Physics and Biology*, Physis, Rivista Internazionale di Storia della Scienza, vol. L (2015), fasc. 1-2, p. 277-290