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**SARAŠAS**

**Knygos ir leidiniai**

1. V. Snegursky, J. Tamuliene, L. G. Romanova, V. S. Vukstich. Amino Acid Molecules Fragmentation by Low-Energy Electrons. NOVINKA Press, New York, 2014, 99 p. ISBN: 978-1-63117-449-0.
2. Baltic Astronomy, 22, Nr. 1-4 (2013), ats. red. V. Straižys, ISSN 139-0049.
3. Lietuvos dangus 2014 (ats. red. G. Tautvaišienė) 164 psl., ISSN 1392-0987.

**Straipsniai ISI žurnaluose**

1. M.-J. Lee, J. Ruseckas, Ch.-Y. Lee, V. Kudriašov, K.-F. Chang, H.-W. Cho, G. Juzeliūnas and I. A. Yu, *Experimental demonstration of spinor slow light*, Nat. Commun. 5, 5542 (2014).
2. V. Kudriašov, J. Ruseckas, A. Mekys, A. Ekers, N. Bezuglov, and G. Juzeliūnas, *Superluminal two-color light in a multiple Raman gain medium*, Phys. Rev. A 90, 033827 (2014).
3. N. Goldman, G. Juzeliūnas, P. Öhberg and I. B. Spielman, *Light-induced gauge fields for ultracold atoms*, Rep. Prog. Phys. 77 126401 (2014).
4. A. Kononovicius, J. Ruseckas, *Continuous transition from the extensive to the non-extensive statistics in an agent-based herding model*, Eur. Phys. J. B 87, 169 (2014).
5. R. Kazakevičius, J. Ruseckas, *Lévy flights in inhomogeneous environments and 1/f noise*, Physica A 411, 95 (2014).
6. J. Ruseckas and B. Kaulakys, *Scaling properties of signals as origin of 1/f noise*, J. Stat. Mech. 2014, P06005 (2014).
6. A. Celi, P. Massignan, J. Ruseckas, N. Goldman, I. B. Spielman, G. Juzeliūnas, and M. Lewenstein, *Synthetic Gauge Fields in Synthetic Dimensions*, Phys. Rev. Lett. **112**, 043001 (2014).
7. E. Anisimovas, F. Gerbier, T. Andrijauskas, and N. Goldman, *Design of laser-coupled honeycomb optical lattices supporting Chern insulators*, Phys. Rev. A **89**, 013632 (2014).
8. A. Acus, E. Norvaišas, and Ya. Shnir, *Hopfions interaction from the viewpoint of the product ansatz*, Phys. Lett. B **733**, 15–20 (2014).
9. S. Feili, H. R. Hamedi, *Large Kerr nonlinearity in a crystal of molecular magnets system*. [Opt. Comm.](#) **315**, 116–121 (2014).
10. H. R. Hamedi, A. Khaledi-Nasab, and H. Ghaforyan. *Tunneling Control of Transmission Coefficient and Group Index in a Quantum Dot Nanostructure*. Advances in Condensed Matter Physics, Volume 2014 (2014), Article ID 589415, 9 pages.
11. H. R. Hamedi, *Electron localization in an asymmetric double quantum well nanostructure*. [Physica B](#), **440**, 83–87(2014).

12. H. R. Hamed. *Enormous enhancements of the Kerr nonlinearity at C-band telecommunication wavelength in an Er<sup>3+</sup>-doped YAG crystal*. *Physica B*, **442**, 60–65(2014).
13. H. R. Hamed. *Transient and steady-state properties of asymmetric semiconductor quantum wells at telecom wavelength bands*. *JETP Letters*, **100**, 44-54 (2014).
14. H. R. Hamed. *Optical bistability through the cavity effect in a four-level open atomic medium*. *JETP Letters*, **100**, 299-305 (2014).
15. H. R. Hamed. *Inter-dot tunneling control of optical bistability in triple quantum dot molecules*. *Physica B*, **449**, 5–9 (2014).
16. H. R. Hamed. *Optical bistability via Josephson coupling energy in a superconducting quantum circuit*. *Laser Phys.* **24**, 115203 (2014).
17. H. R. Hamed. *Electron localization in an asymmetric double quantum well nanostructure (II): Improvement via Fano-type interference*. *Physica B*, **450**, 128–135 (2014).
18. H. R. Hamed. *Optical Bistability and Multistability via Magnetic Field Intensities in a Solid*. *Applied Optics*, **53**, 5391-5397 (2014).
19. H. R. Hamed. *Ultra-slow propagation of light located in ultra-narrow transparency windows through four quantum dot molecules*. *Laser Phys. Lett.* **11**, 085201 (9pp) (2014).
20. H. R. Hamed, A. Radmehr, M. Sahrai. *Manipulation of Goos- Hänchen shift in mercury atomic configuration via interacting dark- state resonances*. *Phys. Rev. A* **90**, 053836 (2014)
21. H. R. Hamed. *Perfect Precision Detecting Probability Of An Atom Via Sgc Mechanism*. *Int J Theor Phys* (DOI 10.1007/s10773-014-2407-z) (2014).
22. V. Gontis, A. Kononovicius, *Consentaneous agent-based and stochastic model of the financial markets*, *PLoS ONE* **9**, e102201 (2014), doi: [10.1371/journal.pone.0102201](https://doi.org/10.1371/journal.pone.0102201).
23. A. Kononovicius, V. Gontis, *Control of the socio-economic systems using herding interactions*, *Physica A* **405**, 80-84 (2014), doi: [10.1016/j.physa.2014.03.003](https://doi.org/10.1016/j.physa.2014.03.003).
24. V. Gineitytė, *Perturbative Analogue for the Concept of Conjugated Circuits in Benzenoid Hydrocarbons*, *MATCH Commun. Math. Comput. Chem.* **72** 39-73 (2014).
25. V. Gineityte, *Electron Transfer Properties of Alternant Hydrocarbons in Terms of Inverse Adjacency Matrices of Molecular Graphs*, *Croat. Chem. Acta* **87** (2) (2014) 171–183; <http://dx.doi.org/10.5562/cca2275>.
26. R. Janciene, G. Mikulskiene, T. Javorskis, A. Vektariene, G. Vektaris, L. Kosychova, *Dihydroquinazolino[3,2-a][1,5]benzodiazepines: Synthesis and Computational Study of Reductive N-Heterocyclization of N-(2-Nitrobenzoyl)-1,5-benzodiazepin-2-ones*, *Journal of Heterocyclic Chemistry* 2014 05 14 (publikuota on line) DOI: 10.1002/jhet.2038.
27. I. I. Beterov, T. Andrijauskas, D. B. Tretyakov, V. M. Entin, E. A. Yakshina, I. I. Ryabtsev, and S. Bergamini, *Jaynes-Cummings dynamics in mesoscopic ensembles of Rydberg-blockaded atoms*, *Phys. Rev. A* **90**, 043413 (2014).
28. R. Kisielius, V. P. Kulkarni, G. J. Ferland, P. Bogdanovich, M. L. Lykins. *Atomic data for S II – toward better diagnostics of chemical evolution in high-redshift galaxies*. *The Astrophysical Journal*, 780:76 (11pp) (2014).
29. P. Rynkun, P. Jonsson, G. Gaigalas, C. Froese Fischer. *Energies and E1, M1, E2, and M2 transition rates for states of the 2s22p3, 2s2p4, and 2p5 configurations in nitrogen-like*

- ions between F III and Kr XXX. *Atomic Data and Nuclear Data Tables*, 100, 315-402 (2014).
30. P. Jonsson, P. Bengtsson, J. Ekman, S. Gustafsson, L. B. Karlsson, G. Gaigalas, C. Froese Fischer, D. Kato, I. Murakami, H. A. Sakaue, H. Hara, T. Watanabe, N. Nakamura, N. Yamamoto. Relativistic CI calculations of spectroscopic data for the 2p6 and 2p53l configurations in Ne-like ions between Mg III and Kr XXVII. *Atomic Data and Nuclear Data Tables*, 100, 1-154 (2014).
  31. Alkauskas, P. Rynkun, G. Gaigalas, A. Kynienė, R. Kisielius, S. Kučas, Š. Masys, G. Merkelis, V. Jonauskas. Theoretical investigation of spectroscopic parameters of W<sup>25+</sup>. *J. Quant. Spectr. Rad. Transf.*, 136, 108-118 (2014).
  32. R. Juršėnas. On the definite integral of two confluent hypergeometric functions related to the Kampe de Fériet double series. *Lith. Mathematical Journal*, 54, 61-73 (2014).
  33. J. Ekman, P. Jonsson, S. Gustafsson, H. Hartman, G. Gaigalas, M. R. Godefroid, C. Froese Fischer. Calculations with spectroscopic accuracy: energies, transition rates, and Lande gJ-factors in the carbon isoelectronic sequence from Ar XIII to Zn XXV. *Astronomy and Astrophysics*, 564, A24 (2014).
  34. J. Tamuliene, L. G. Romanova, V. S. Vukstich, A. Papp, A. V. Snegursky. Electron-impact-induced asparagine molecule fragmentation. *Eur. Phys. J. D*, 68, 118 (2014).
  35. V. Jonauskas, A. Prancikevičius, Š. Masys, A. Kynienė. Electron-impact direct double ionization as a sequence of processes. *Phys. Rev. A*, 89, 052714 (2014).
  36. S. Verdebout, C. Naze, J. Jonsson, P. Rynkun, M. Godefroid, G. Gaigalas. Hyperfine structures and Lande gJ-factors for n=2 states in beryllium-, boron-, carbon-, and nitrogen-like ions from relativistic configuration interaction calculations. *ADNDT*, 100, 1111-1155 (2014).
  37. C. Naze, S. Verdebout, P. Rynkun, G. Gaigalas, M. Godefroid, P. Jonsson. Isotope shifts in beryllium-, boron-, carbon-, and nitrogen-like ions from relativistic configuration interaction calculations. *ADNDT*, 100, 1197-1249 (2014).
  38. L. Radžiūtė, G. Gaigalas, P. Jonsson, J. Bieron. Multiconfiguration Dirack-Fock calculations of atomic electric dipole moments of <sup>225</sup>Ra, <sup>199</sup>Hg, and <sup>171</sup>Yb. *Phys. Rev. A* 90, 012528 (2014).
  39. P. Bogdanovich, R. Kisielius. Energy level properties of 4p64d3, 4p64d24f, and 4p54d4 configurations of the W<sup>35+</sup> ion. *ADNDT*, 100, 1593-1602 (2014).
  40. J. Tamuliene. Electronic and vibronic spectra of C<sub>60</sub> and its ions. *Fullerenes, Nanotubes and Carbon Nanostructures*, 23, 187-195 (2014).
  41. P. Bogdanovich, R. Kisielius, D. Stonys. Methods, algorithms and computer codes for calculation of electron-impact excitation parameters. *Lith. J. Phys.*, 54, 24-30 (2014).
  42. R. Juršėnas. On the spectrum of a two-particle Rashba Hamiltonian. *Acta Physica Polonica*, 45, 877 (2014).
  43. R. Karazija. Additional symmetry properties of atomic states with one and two open shells. *Lithuanian Journal of Physics*, 54(4) (2014).
  44. A. Tamulis, M. Grigalavičius, Š. Krisciukaitis, Quantum Entanglement in a System Composed of Two Prebiotic Kernels with Molecular Spintronics Logic Devices for

- Control of Photosynthesis. *Journal of Computational and Theoretical Nanoscience*, 11, 1597-1608 (2014).
45. Dobrovolskas, V.; Kučinskas, A.; Bonifacio, P.; Korotin, S. A.; Sbordone, L.; Caffau, E.; Prakupavičius, D.; Steffen, M.; Ludwig, H.-G.; Royer, F., Abundances of lithium, oxygen, and sodium in the turn-off stars of Galactic globular cluster 47 Tucanae, 2014, *Astronomy & Astrophysics*, 565, id.A121, 24 pp.
  46. Kučinskas, A.; Dobrovolskas, V.; Bonifacio, P., Galactic globular cluster 47 Tucanae: new ties between the chemical and dynamical evolution of globular clusters? 2014, *Astronomy & Astrophysics*, 568, id.L4, 4 pp.
  47. Straizys, V.; Maskoliūnas, M.; Boyle, R. P.; Zdanavičius, K.; Zdanavičius, J.; Laugalys, V.; Kazlauskas, A., The open cluster NGC 7142: interstellar extinction, distance and age, *Monthly Notices of the Royal Astronomical Society*, 2014, Vol. 437, p. 1628-1635;
  48. Straizys, V.; Maskoliūnas, M.; Boyle, R. P.; Prada Moroni, P. G.; Tognelli, E.; Zdanavičius, K.; Zdanavičius, J.; Laugalys, V.; Kazlauskas, A., The distance to the young cluster NGC 7129 and its age, *Monthly Notices of the Royal Astronomical Society*, 2014, Vol. 438, p. 1848-1855;
  49. Straizys V., Milašius K., Boyle R.P., Vrba F.J., Munari U., Walborn N.R., Černis K., Kazlauskas A., Zdanavičius K., Janusz R., Zdanavičius J., Laugalys V., The enigma of the open cluster M29 (NGC 6913) solved, *The Astronomical Journal*, 148, 89, 2014 (9 pages);
  50. Černis K.; Włodarczyk I.; Zdanavičius J. Observational data and orbits of asteroids discovered at the Molėtai observatory in 2000-2004. *Baltic Astronomy* vol. 23, 1-13, 2014;
  51. Włodarczyk, K. Černis, R. Boyle, V. Laugalys. Discovery and dynamical characterization of the Amor-class asteroid 2012 XH16. *Monthly Notices of the Royal Astronomical Society*, 2014, 438, 2621-2633.
  52. N. Pertsev, P. Dalin, V. Perminov, V. Romejko, A. Dubietis, R. Balčiūnas, K. Černis, M. Zalcik. Noctilucent clouds observed from ground: sensitivity to mesospheric parameters and long-term time series. 2014, *Earth, Planets and Space*, 66, 98.
  53. Hermes, J.J.; Charpinet, S.; Barclay, Thomas; Pakstiene, E.; Mullally, Fergal; Kawaler, Steven D.; Bloemen, S.; Castanheira, Barbara G.; Winget, D.E.; Montgomery, M.H.; Van Grootel, V.; Huber, Daniel; Still, Martin; Howell, Steve B.; Caldwell, Douglas A.; Haas, Michael R.; Bryson, Stephen T., Precision Asteroseismology of the Pulsating White Dwarf GD 1212 Using a Two-wheel-controlled Kepler Spacecraft, *The Astrophysical Journal*, Volume 789, Issue 1, article id. 85, (2014)
  54. Mikolaitis, S.; Hill, V.; Recio-Blanco, A.; de Laverny, P.; Allende Prieto, C.; Kordopatis, G.; Tautvaisiene, G.; Romano, D.; Gilmore, G.; Randich, S.; Feltzing, S.; Micela, G.; Vallenari, A.; Alfaro, E. J.; Bensby, T.; Bragaglia, A.; Flaccomio, E.; Lanzafame, A. C.; Pancino, E.; Smiljanic, R.; Bergemann, M.; Carraro, G.; Costado, M. T.; Damiani, F.; Hourihane, A.; Jofré, P.; Lardo, C.; Magrini, L.; Maiorca, E.; Morbidelli, L.; Sbordone, L.; Sousa, S. G.; Worley, C. C.; Zaggia, S., 2014, The Gaia-ESO Survey: the chemical structure of the Galactic discs from the first internal data release // *Astronomy & Astrophysics* 572, 33.
  55. Jackson-Jones, R.; Jofré, P.; Hawkins, K.; Hourihane, A.; Gilmore, G.; Kordopatis, G.; Worley, C.; Randich, S.; Vallenari, A.; Bensby, T.; Bragaglia, A.; Flaccomio, E.; Korn, A.

- J.; Recio-Blanco, A.; Smiljanic, R.; Costado, M. T.; Heiter, U.; Hill, V.; Lardo, C.; de Laverny, P.; Guiglion, G.; Mikolaitis, S.; Zaggia, S.; Tautvaisiene, G., 2014, The Gaia-ESO Survey: alpha-abundances of metal-poor stars // *Astronomy & Astrophysics* 571, 5.
56. Smiljanic, R.; Korn, A. J.; Bergemann, M.; Frasca, A.; Magrini, L.; Masseron, T.; Pancino, E.; Ruchti, G.; San Roman, I.; Sbordone, L.; Sousa, S. G.; Taberner, H.; Tautvaisiene, G.; Valentini, M.; Weber, M.; Worley, C. C.; Adibekyan, V. Zh.; Allende Prieto, C.; Barisevicius, G.; Biazzo, K.; Blanco-Cuaresma, S.; Bonifacio, P.; Bragaglia, A.; Caffau, E.; Cantat-Gaudin, T.; Chorniy, Y.; de Laverny, P.; Delgado-Mena, E.; Donati, P.; Duffau, S.; Franciosini, E.; Friel, E.; Geisler, D.; González Hernández, J. I.; Gruyters, P.; Guiglion, G.; Hansen, C. J.; Heiter, U.; Hill, V.; Jacobson, H. R.; Jofre, P.; Jönsson, H.; Lanzafame, A. C.; Lardo, C.; Ludwig, H.-G.; Maiorca, E.; Mikolaitis, S.; Montes, D.; Morel, T.; Mucciarelli, A.; Muñoz, C.; Nordlander, T.; Pasquini, L.; Puzeras, E.; Recio-Blanco, A.; Ryde, N.; Sacco, G.; Santos, N. C.; Serenelli, A. M.; Sordo, R.; Soubiran, C.; Spina, L.; Steffen, M.; Vallenari, A.; Van Eck, S.; Villanova, S.; Gilmore, G.; Randich, S.; Asplund, M.; Binney, J.; Drew, J.; Feltzing, S.; Ferguson, A.; Jeffries, R.; Micela, G.; Negueruela, I.; Prusti, T.; Rix, H.-W.; Alfaro, E.; Babusiaux, C.; Bensby, T.; Blomme, R.; Flaccomio, E.; François, P.; Irwin, M.; Koposov, S.; Walton, N.; Bayo, A.; Carraro, G.; Costado, M. T.; Damiani, F.; Edvardsson, B.; Hourihane, A.; Jackson, R.; Lewis, J.; Lind, K.; Marconi, G.; Martayan, C.; Monaco, L.; Morbidelli, L.; Prisinzano, L.; Zaggia, S., 2014, The Gaia-ESO Survey: The analysis of high-resolution UVES spectra of FGK-type stars // *Astronomy & Astrophysics* 570, 122.
57. Cantat-Gaudin, T.; Vallenari, A.; Zaggia, S.; Bragaglia, A.; Sordo, R.; Drew, J. E.; Eisloffel, J.; Farnhill, H. J.; Gonzalez-Solares, E.; Greimel, R.; Irwin, M. J.; Kupcu-Yoldas, A.; Jordi, C.; Blomme, R.; Sampedro, L.; Costado, M. T.; Alfaro, E.; Smiljanic, R.; Magrini, L.; Donati, P.; Friel, E. D.; Jacobson, H.; Abbas, U.; Hatzidimitriou, D.; Spagna, A.; Vecchiato, A.; Balaguer-Nunez, L.; Lardo, C.; Tosi, M.; Pancino, E.; Klutsch, A.; Tautvaisiene, G.; Drazdauskas, A.; Puzeras, E.; Jiménez-Esteban, F.; Maiorca, E.; Geisler, D.; San Roman, I.; Villanova, S.; Gilmore, G.; Randich, S.; Bensby, T.; Flaccomio, E.; Lanzafame, A.; Recio-Blanco, A.; Damiani, F.; Hourihane, A.; Jofré, P.; de Laverny, P.; Masseron, T.; Morbidelli, L.; Prisinzano, L.; Sacco, G. G.; Sbordone, L.; Worley, C. C., 2014, The Gaia-ESO Survey: Stellar content and elemental abundances in the massive cluster NGC 6705 // *Astronomy & Astrophysics* 569, 17.
58. Spina, L.; Randich, S.; Palla, F.; Biazzo, K.; Sacco, G. G.; Alfaro, E. J.; Franciosini, E.; Magrini, L.; Morbidelli, L.; Frasca, A.; Adibekyan, V.; Delgado-Mena, E.; Sousa, S. G.; González Hernández, J. I.; Montes, D.; Taberner, H.; Tautvaisiene, G.; Bonito, R.; Lanzafame, A. C.; Gilmore, G.; Jeffries, R. D.; Vallenari, A.; Bensby, T.; Bragaglia, A.; Flaccomio, E.; Korn, A. J.; Pancino, E.; Recio-Blanco, A.; Smiljanic, R.; Bergemann, M.; Costado, M. T.; Damiani, F.; Hill, V.; Hourihane, A.; Jofré, P.; de Laverny, P.; Lardo, C.; Masseron, T.; Prisinzano, L.; Worley, C. C., 2014, The Gaia-ESO Survey: Metallicity of the Chamaeleon I star-forming region // *Astronomy & Astrophysics* 568, 2.
59. Bergemann, M.; Ruchti, G. R.; Serenelli, A.; Feltzing, S.; Alves-Brito, A.; Asplund, M.; Bensby, T.; Gruyters, P.; Heiter, U.; Hourihane, A.; Korn, A.; Lind, K.; Marino, A.; Jofre, P.; Nordlander, T.; Ryde, N.; Worley, C. C.; Gilmore, G.; Randich, S.; Ferguson, A. M. N.; Jeffries, R. D.; Micela, G.; Negueruela, I.; Prusti, T.; Rix, H.-W.; Vallenari, A.; Alfaro, E. J.; Allende Prieto, C.; Bragaglia, A.; Koposov, S. E.; Lanzafame, A. C.; Pancino, E.; Recio-Blanco, A.; Smiljanic, R.; Walton, N.; Costado, M. T.; Franciosini, E.; Hill, V.; Lardo, C.; de Laverny, P.; Magrini, L.; Maiorca, E.; Masseron, T.; Morbidelli, L.; Sacco,

- G.; Kordopatis, G.; Tautvaisiene, G., 2014, The Gaia-ESO Survey: radial metallicity gradients and age-metallicity relation of stars in the Milky Way disk // *Astronomy & Astrophysics* 565, 89.
60. Friel, E. D.; Donati, P.; Bragaglia, A.; Jacobson, H. R.; Magrini, L.; Prisinzano, L.; Randich, S.; Tosi, M.; Cantat-Gaudin, T.; Vallenari, A.; Smiljanic, R.; Carraro, G.; Sordo, R.; Maiorca, E.; Tautvaisiene, G.; Sestito, P.; Zaggia, S.; Jiménez-Esteban, F. M.; Gilmore, G.; Jeffries, R. D.; Alfaro, E.; Bensby, T.; Koposov, S. E.; Korn, A. J.; Pancino, E.; Recio-Blanco, A.; Franciosini, E.; Hill, V.; Jackson, R. J.; de Laverny, P.; Morbidelli, L.; Sacco, G. G.; Worley, C. C.; Hourihane, A.; Costado, M. T.; Jofré, P.; Lind, K., 2014, Gaia-ESO Survey: Properties of the intermediate age open cluster NGC 4815 // *Astronomy & Astrophysics* 563, 117.
  61. Ženovienė, R.; Tautvaišienė, G.; Nordström, B.; Stonkutė, E., 2014, Stellar substructures in the solar neighbourhood. III. Kinematic group 2 in the Geneva-Copenhagen survey // *Astronomy & Astrophysics* 563, 53.
  62. Magrini, L.; Randich, S.; Romano, D.; Friel, E.; Bragaglia, A.; Smiljanic, R.; Jacobson, H.; Vallenari, A.; Tosi, M.; Spina, L.; Donati, P.; Maiorca, E.; Cantat-Gaudin, T.; Sordo, R.; Bergemann, M.; Damiani, F.; Tautvaišienė, G.; Blanco-Cuaresma, S.; Jiménez-Esteban, F.; Geisler, D.; Mowlavi, N.; Muñoz, C.; San Roman, I.; Soubiran, C.; Villanova, S.; Zaggia, S.; Gilmore, G.; Asplund, M.; Feltzing, S.; Jeffries, R.; Bensby, T.; Koposov, S.; Korn, A. J.; Flaccomio, E.; Pancino, E.; Recio-Blanco, A.; Sacco, G.; Costado, M. T.; Franciosini, E.; Jofre, P.; de Laverny, P.; Hill, V.; Heiter, U.; Hourihane, A.; Jackson, R.; Lardo, C.; Morbidelli, L.; Lewis, J.; Lind, K.; Masseron, T.; Prisinzano, L.; Worley, C., 2014, The Gaia-ESO Survey: Abundance ratios in the inner-disk open clusters Trumpler 20, NGC 4815, NGC 6705 // *Astronomy & Astrophysics* 563, 44.
  63. Donati, P.; Cantat Gaudin, T.; Bragaglia, A.; Friel, E.; Magrini, L.; Smiljanic, R.; Vallenari, A.; Tosi, M.; Sordo, R.; Tautvaišienė, G.; Blanco-Cuaresma, S.; Costado, M. T.; Geisler, D.; Klutsch, A.; Mowlavi, N.; Muñoz, C.; San Roman, I.; Zaggia, S.; Gilmore, G.; Randich, S.; Bensby, T.; Flaccomio, E.; Koposov, S. E.; Korn, A. J.; Pancino, E.; Recio-Blanco, A.; Franciosini, E.; de Laverny, P.; Lewis, J.; Morbidelli, L.; Prisinzano, L.; Sacco, G.; Worley, C. C.; Hourihane, A.; Jofré, P.; Lardo, C.; Maiorca, E., 2014, The Gaia-ESO Survey: Reevaluation of the parameters of the open cluster Trumpler 20 using photometry and spectroscopy // *Astronomy & Astrophysics* 561, 94.
  64. Sousa, S. G.; Santos, N. C.; Adibekyan, V.; Delgado-Mena, E.; Tabernero, H. M.; González Hernández, J. I.; Montes, D.; Smiljanic, R.; Korn, A. J.; Bergemann, M.; Soubiran, C.; Mikolaitis, S., 2014, A new procedure for defining a homogenous line-list for solar-type stars // *Astronomy & Astrophysics* 561, 21.
  65. E. Pakštienė, J.K.T. Qvam, R.H. Ostensen, J.H. Telting, *Acta Astronomica*, 64, 349-358 (2014).
  66. A. Deltuva, A. C. Fonseca, Calculation of multichannel reactions in the four-nucleon system above breakup threshold, *Phys. Rev. Lett.* 113, 102502 (2014).
  67. A. Deltuva, A. C. Fonseca, Calculation of neutron-<sup>3</sup>He scattering up to 30 MeV, *Phys. Rev. C* 90, 044002 (2014).
  68. R. Crespo, A. Deltuva, E. Cravo, Rescattering effects for the <sup>12</sup>C(p,2p)<sup>11</sup>B reaction at 400 MeV/u, *Phys. Rev. C* 90, 044606 (2014).
  69. M. Mihovilovič, A. Deltuva et al, Measurement of double-polarization asymmetries in the quasielastic <sup>3</sup>He(e,e'd) process, Jefferson Lab Hall A Collaboration [from Lithuania: A. Deltuva], *Phys. Rev. Lett.* 113, 232505 (2014).

70. A. Acus, E. Norvaišas, Ya. Shmir. Hoppions interaction from the viewpoint of the product ansatz // Physics Letters B, ISSN: 0370 – 2693. v. 733, p. 15-20 (2014).
71. Artūras Acus, Žilvinas Ežerinskis, Petras Serapinas. Ba–Pb tester for mass spectrometric LTE plasma diagnostics. International Journal of Mass Spectrometry 369, 08 2014, psl. 44-47.
72. Juodagalvis, Andrius, Measurement of jet fragmentation in PbPb and pp collisions at  $\sqrt{s(NN)} = 2.76$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. C College Park : American Physical Society. ISSN 0556-2813. 2014, vol. 90, no 2, Art. no 024908.
73. Juodagalvis, Andrius, Measurement of higher-order harmonic azimuthal anisotropy in PbPb collisions at  $\sqrt{s(NN)} = 2.76$  TeV / S. Chatrchyan, et al, CMS Collaboration [from Lithuania : A. Juodagalvis]. // Physical review. C College Park : American Physical Society. ISSN 0556-2813. 2014, vol 89, no 4, p. art. no 044906.
74. Grigelionis, Ignas, Juodagalvis, Andrius, Measurement of the production cross sections for a Z boson and one or more b jets in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : I. Grigelionis, A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 6, Art. no. 120.
75. Grigelionis, Ignas, Juodagalvis, Andrius, Measurement of associated W + charm production in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : I. Grigelionis, A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 2, Art. no. 013.
76. Grigelionis, Ignas, Juodagalvis, Andrius, Event activity dependence of U(nS) production in p sNN = 5.02 TeV pPb and p s = 2.76 TeV pp collisions. / CMS Collaboration [from Lithuania : I. Grigelionis, A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 4, Art. no. 40.
77. Grigelionis, Ignas, Juodagalvis, Andrius, Measurement of the  $W\gamma$  and  $Z\gamma$  inclusive cross sections in pp collisions at  $\sqrt{s} = 7$  TeV and limits on anomalous triple gauge boson couplings / S. Chatrchyan et al; CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 89, no. 9, Art. no. 092005.
78. Grigelionis, Ignas, Juodagalvis, Andrius, Measurement of the production cross section for a W boson and two b jets in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania: I Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 735, p. 204-225.
79. Grigelionis, Ignas, Juodagalvis, Andrius, Study of the production of charged pions, kaons, and protons in pPb collisions at  $\sqrt{s(NN)} = 5.02$  TeV / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, Art. no. 2847.
80. Grigelionis, Ignas, Juodagalvis, Andrius, Measurement of the top-quark mass in all-jets  $t\bar{t}$  events in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, Art. no. 2758.
81. Grigelionis, Ignas, Juodagalvis, Andrius, Search for the standard model Higgs boson produced in association with a W or a Z boson and decaying to bottom quarks / S. Chatrchyan et al; CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 89, no. 1, Art. no. 012003.
82. Grigelionis, Ignas, Juodagalvis, Andrius, Search for baryon number violation in top-quark decays / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 731, p. 173-196.

83. Grigelionis, Ignas, Juodagalvis, Andrius, Probing color coherence effects in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, Art. no. 2901.
84. Grigelionis, Ignas, Juodagalvis, Andrius, Observation of a peaking structure in the  $J/\psi\phi$  mass spectrum from  $B^\pm \rightarrow J/\psi\phi K^\pm$  decays / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 734, p. 261-281.
85. Grigelionis, Ignas, Juodagalvis, Andrius, Search for pair production of excited top quarks in the lepton + jets final state / CMS Collaboration [from Lithuania : I. Grigelionis, A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014 no. 6, Art. no. 125.
86. Grigelionis, Ignas, Juodagalvis, Andrius, Modification of jet shapes in PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 730, p. 243-263.
87. Grigelionis, Ignas, Juodagalvis, Andrius, Measurement of the triple-differential cross section for photon jets production in proton-proton collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : I. Grigelionis, A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014 no. 6, Art. no. 009.
88. Grigelionis, Ignas, Juodagalvis, Andrius, Determination of the top-quark pole mass and strong coupling constant from the  $t\bar{t}$  production cross section in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 728, p. 496-517.
89. Grigelionis, Ignas, Juodagalvis, Andrius, Searches for light- and heavy-flavour three-jet resonances in pp collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 730, p. 193-214.
90. Grigelionis, Ignas, Juodagalvis, Andrius, Search for supersymmetry in pp collisions at  $\sqrt{s} = 8$  TeV in events with a single lepton, large jet multiplicity, and multiple b jets / CMS Collaboration [from Lithuania: I. Grigelionis, A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 733, p. 328-353.
91. Juodagalvis, Andrius, Search for new physics in the multijet and missing transverse momentum final state in proton-proton collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 6, Art. no. 055.
92. Juodagalvis, Andrius, Search for  $W'$  to tb decays in the lepton + jets final state in pp collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 5, Art. no. 108.
93. Juodagalvis, Andrius, Evidence for the 125 GeV Higgs boson decaying to a pair of tau leptons / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 5, Art. no. 104.
94. Juodagalvis, Andrius, Measurements of the  $t\bar{t}$  charge asymmetry using the dilepton decay channel in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 4, Art. no. 191.
95. Juodagalvis, Andrius, Measurement of the  $t\bar{t}$  production cross section in the dilepton channel in pp collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania : A.



- Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 2, Art. no. 024.
96. Juodagalvis, Andrius, Observation of the Associated Production of a Single Top Quark and a W Boson in pp Collisions at  $\sqrt{s} = 8$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 23, Art. no 231802.
  97. Juodagalvis, Andrius, Measurement of the ratio  $B(t \rightarrow Wb)/B(t \rightarrow Wq)$  in pp collisions at  $\sqrt{s}=8$ TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 736, p. 33-57.
  98. Juodagalvis, Andrius, Evidence for the direct decay of the 125 GeV Higgs boson to fermions / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Nature physics. London : Nature Publishing Group. ISSN 1745-2473. 2014, Vol. 10, iss. 4, p. 557-560.
  99. Juodagalvis, Andrius, Alignment of the CMS tracker with LHC and cosmic ray data / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Journal of instrumentation. Bristol : IOP Publishing Ltd.. ISSN 1748-0221. 2014, Vol. 9, no. 6, Art. no. P06009.
  100. Juodagalvis, Andrius, Measurement of Inclusive W and Z Boson Production Cross Sections in pp Collisions at  $\sqrt{s} = 8$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 19, Art. no 191802.
  101. Juodagalvis, Andrius, Measurement of WZ and ZZ production in pp collisions at  $\sqrt{s} = 8$  TeV in final states with b-tagged jets / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 8, Art. no. 2973.
  102. Juodagalvis, Andrius, Studies of dijet transverse momentum balance and pseudorapidity distributions in pPb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 7, Art. no. 2951.
  103. Juodagalvis, Andrius, Measurement of the properties of a Higgs boson in the four-lepton final state / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 89, no. 9, Art. no. 092007.
  104. Juodagalvis, Andrius, Search for invisible decays of Higgs bosons in the vector boson fusion and associated ZH production modes / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 8, Art. no. 2983.
  105. Juodagalvis, Andrius, Measurement of four-jet production in proton-proton collisions at  $\sqrt{s}=7$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 89, no. 9, Art. no. 092010.
  106. Juodagalvis, Andrius, Evidence of b-jet quenching in PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 13, Art. no 132301.
  107. Juodagalvis, Andrius, Search for Flavor-Changing Neutral Currents in Top-Quark Decays  $t \rightarrow Zq$  in pp Collisions at  $\sqrt{s} = 8$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 17, Art. no 171802.
  108. Juodagalvis, Andrius, Study of double parton scattering using W 2-jet events in proton-proton collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : A.

- Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 3, Art. no. 032.
109. Juodagalvis, Andrius, Search for stop and higgsino production using diphoton Higgs boson decays / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 16, Art. no 161802.
  110. Juodagalvis, Andrius, Search for top-quark partners with charge 5/3 in the same-sign dilepton final state / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 17, Art. no 171801.
  111. Juodagalvis, Andrius, Studies of azimuthal dihadron correlations in ultra-central PbPb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 2, Art. no. 088.
  112. Juodagalvis, Andrius, Measurement of Higgs boson production and properties in the WW decay channel with leptonic final states / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014 no. 1, Art. no. 096.
  113. Juodagalvis, Andrius, Inclusive search for a vector-like T quark with charge 2/3 in pp collisions at  $\sqrt{s}=8$  TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 729, p. 149-171.
  114. Juodagalvis, Andrius, Measurements of  $t\bar{t}$  spin correlations and top-quark polarization using dilepton final states in pp collisions at  $\sqrt{s} = 7$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review letters. College Park : American Physical Society. ISSN 0031-9007. 2014, Vol. 112, no. 18, Art. no 182001.
  115. Juodagalvis, Andrius, Search for standard model production of four top quarks in the lepton + jets channel in pp collisions at  $p s = 8$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 11, Art. no. 154.
  116. Juodagalvis, Andrius, Search for neutral MSSM Higgs bosons decaying to a pair of tau leptons in pp collisions / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 10, Art. no. 160.
  117. Juodagalvis, Andrius, Search for excited quarks in the photon+jet final state in proton-proton collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 738, p. 274-293.
  118. Juodagalvis, Andrius, Search for jet extinction in the inclusive jet-pt spectrum from proton-proton collisions at  $\sqrt{s} = 8$  TeV / S. Kharchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 90, no. 3, Art. no. 032005.
  119. Juodagalvis, Andrius, Measurement of prompt J/psi pair production in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 9, Art. no. 094.
  120. Juodagalvis, Andrius, Study of hadronic event-shape variables in multijet final states in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 10, Art. no. 087.

121. Juodagalvis, Andrius, Search for the associated production of the Higgs boson with a top-quark pair / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 9, Art. no. 087.
122. Juodagalvis, Andrius, Observation of the diphoton decay of the Higgs boson and measurement of its properties / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 10, Art. no. 3076.
123. Juodagalvis, Andrius, Measurement of top quark-antiquark pair production in association with a W or Z boson in pp collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 9, Art. no. 3060.
124. Juodagalvis, Andrius, Searches for electroweak production of charginos, neutralinos, and sleptons decaying to leptons and W, Z, and Higgs bosons in pp collisions at 8 TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 9, Art. no. 3036.
125. Juodagalvis, Andrius, Search for massive resonances decaying into pairs of boosted bosons in semi-leptonic final states at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 8, Art. no. 174.
126. Juodagalvis, Andrius, Search for top-squark pairs decaying into Higgs or Z bosons in pp collisions at  $\sqrt{s} = 8$  TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 736, p. 371-397.
127. Juodagalvis, Andrius, Constraints on the Higgs boson width from off-shell production and decay to Z-boson pairs / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physics letters. B. Amsterdam : Elsevier Science BV. ISSN 0370-2693. 2014, vol. 736, p. 64-85.
128. Juodagalvis, Andrius, Description and performance of track and primary-vertex reconstruction with the CMS tracker / CMS Collaboration [from Lithuania: A. Juodagalvis]. // Journal of instrumentation. Bristol : IOP Publishing Ltd.. ISSN 1748-0221. 2014, Vol. 9, no. 10, Art. no. P10009.
129. Juodagalvis, Andrius, A search for WW gamma and WZ gamma production and constraints on anomalous quartic gauge couplings in pp collisions at  $\sqrt{s} = 8$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 90, no. 3, Art. no. 032008.
130. Juodagalvis, Andrius, Search for anomalous production of events with three or more leptons in pp collisions at  $\sqrt{s} = 8$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 90, no. 3, Art. no. 032006.
131. Juodagalvis, Andrius, Measurement of differential cross sections for the production of a pair of isolated photons in pp collisions at  $\sqrt{s} = 7$  TeV / CMS Collaboration [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 11, Art. no. 3129.
132. Juodagalvis, Andrius, Measurement of pseudorapidity distributions of charged particles in proton-proton collisions at  $\sqrt{s} = 8$  TeV by the CMS and TOTEM experiments / The CMS and TOTEM Collaborations [from Lithuania: A. Juodagalvis]. // European physical journal. C. New York : Springer. ISSN 1434-6044. 2014, Vol. 74, no. 10, Art. no. 3053.
133. Juodagalvis, Andrius, Measurement of the t-channel single-top-quark production cross section and of the  $|V_{tb}|$  CKM matrix element in pp collisions at  $\sqrt{s} = 8$  TeV / CMS

- Collaboration [from Lithuania : A. Juodagalvis]. // Journal of high energy physics. New York : Springer. ISSN 1126-6708. 2014, no. 6, Art. no. 090.
134. Juodagalvis, Andrius, Measurement of the muon charge asymmetry in inclusive pp  $\rightarrow$  W+ X production at  $\sqrt{s} = 7$  TeV and an improved determination of light parton distribution functions / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 90, no. 3, Art. no. 032004.
135. Juodagalvis, Andrius, Measurement of the ratio of inclusive jet cross sections using the anti-kt algorithm with radius parameters  $R = 0.5$  and  $0.7$  in pp collisions at  $\sqrt{s} = 7$  TeV / S. Chatrchyan et al; CMS Collaboration [from Lithuania: A. Juodagalvis]. // Physical review. D. College Park : American Physical Society. ISSN 1550-7998. 2014, Vol. 90, no. 7, Art. no. 072006.

### Publikacijos ISI konferencijų darbuose

1. G. Kerevičius, A. Kupliauskienė. Strong asymmetry of the angular distribution of Auger electrons from electron-impact excited autoionizing states of Rb. J. Phys.: Conf. Series, **488**, 042001 (2014).
2. Kupliauskienė, A. Borovik, G. Kerevičius, V. Roman. On spectroscopic classification of autoionizing levels in Rb atoms. J. Phys.: Conf. Series, **488**, 042002 (2014).
3. Borovik, A. Kupliauskienė. Excitation-autoionization cross section of alkali atoms by electron impact. J. Phys.: Conf. Series, **488**, 042003 (2014).
4. Kupliauskienė, A. Borovik. The  $1s n_1 l_1 n_2 l_2$  electron spectra of lithium atoms. J. Phys.: Conf. Series, **488**, 042004 (2014).
5. Kupliauskienė, A. Borovik, V. Roman. The  $4p^6$  core excitation of  $Rb_2$  by low energy electron impact. J. Phys.: Conf. Series, **488**, 042005 (2014).
6. Borovik, A. Kupliauskienė. The  $2p^6$  autoionization cross section of Na atoms excited by low-energy electron impact. J. Phys.: Conf. Series, **488**, 042006 (2014).
7. V. Hrytsko, V. Roman, A. Kupliauskienė, A. Borovik. The  $4p^6$  electron energy-loss spectrum of Rb atoms. J. Phys.: Conf. Series, **488**, 042007 (2014).
8. V. Roman, A. Borovik, A. Kupliauskienė. Excitation function of high-lying autoionizing states of Rb atoms. J. Phys.: Conf. Series, **488**, 042018 (2014).
9. Alkauskas, J. Bieron, G. Gaigalas. The alpha-dependence of transition frequencies. J. Phys.: Conf. Series, **488**, 042015 (2014).
10. G. Gaigalas, A. Alkauskas, P. Rynkun, R. Kisielius, A. Kyniene, S. Kucas, S. Masys, G. Merkelis, V. Jonauskas, Theoretical Study of  $W^{25+}$  Spectra // Journal of Physics Conference Series, 2014, Vol. 448, 062005.
11. G. Gaigalas, J. Bieroń, and L. Radziūtė, Multiconfiguration Dirac-Hartree-Fock Calculations of EDM for Ra, Hg, Yb // Journal of Physics Conference Series, 2014, Vol. 448, 122001.
12. K. Tamosiunas, Landau hydrodynamics for non-central heavy-ion collisions and longitudinal scaling of elliptic flow, **J.Phys. Conf. Ser.**, vol. 509, p. 012032, 2014.
13. Nordström, B.; Stonkutė, E.; Ženovienė, R.; Tautvaišienė, G., 2014, Traces of the formation history of the Milky Way // Setting the scene for Gaia and LAMOST, Proceedings of the International Astronomical Union, IAU Symposium, Volume 298, pp. 430-430.
14. Ludwig, H.-G.; Steffen, M.; Bonifacio, P.; Caffau, E.; Kučinskas, A.; Freytag, B., 3D

modeling of stellar atmospheres and the impact on the understanding of the reliability of elemental abundances in stars as tracers of galactic chemical evolution, 2014, Setting the scene for Gaia and LAMOST, Proceedings of the International Astronomical Union, IAU Symp., vol. 298, pp. 343-354;

15. E. Pakštienė, V. Laugalys, J. Qvam, and R.P. Boyle, New analysis of ZZ Ceti star PG2303+243, Proceedings of the International Astronomical Union „Precision Asteroseismology“, edited by J.A. Guzik, W.J. Chaplin, G. Handler & A. Pigulski, IAU Symposium, Volume 301, (2014)

### **Straipsniai kituose tarptautiniuose žurnaluose ir leidiniuose**

1. O. Kozlova, J. Tamuliene. Modeling and investigations of the heterofullerenes  $C_{59}X$  ( $X=Na, Li, Mg, Be$ ). Materials Physics and Mechanics, **18**, 63-69 (2013).
2. J. Tamuliene, V.S. Vukstich, L.G. Romanova, A.V. Papp, T.A. Snegurskaya, A.V. Snegursky, L. Baliulyte, On the influence of low- and high-energy ionizing radiation on the amino acid molecule properties: tryptophan. Radiation Interaction With Materials and Its Use in Technologies 2014. 5th International Conference on Radiation Interaction With Materials and Its Use in Technologies, May 12-15, 2014, Kaunas, Lithuania. ISSN 2351-583X.
3. T. Breczko, J. Tamuliene. Investigation of electronic properties of  $Ni_2MnGa$  and  $Co_2MnGa$  heusler alloys. Materials Physics and Mechanics, **20**, 37-43 (2014).
4. G. Gaigalas, D. Kato, P. Jonsson, P. Rynkun, L. Radžiūtė. Energy level structure of  $Er^{3+}$  ion and in  $Er_2O_3$  crystal. Research Report, NIFS-DATA Series, NIFS, Japan, 25 p.
5. J. Tamulienė, L. Baliulytė. Theoretical study of fragmentation of  $Co_6O_7$  nanoparticles. Proceedings of 9<sup>th</sup> International Conference ITELMS'2014, Technologija Press, Kaunas, p. 257-259 (2014).
6. J. Tamuliene, J. Sarlauskas, S. Bekesiene, V. Kleiza. Investigation of stability of N-(2,4,6-trinitrophenyl)-1H-1,2,4-triazol-3-amine. Proceedings of 9<sup>th</sup> International Conference ITELMS'2014, Technologija Press, Kaunas, p. 260-262 (2014).
7. Tautvaišienė G. He-core burning stars – laboratories of extra-mixing in stellar atmospheres, in “Dig Sites of Stellar Archeology: Giant Stars in the Milky Way”, Ege Uni. J. of Faculty of Sci., Special Issue, 2014, 84-96
8. Kučinskas, A.; Dobrovolskas, V.; Bonifacio, P.; Caffau, E.; Ludwig, H.-G.; Steffen, M.; Spite, M., Oxygen in the early Galaxy: OH lines as tracers of oxygen abundance in extremely metal-poor giant stars, 2014, Proceedings of Cool Stars, Stellar Systems and the Sun, vol. 18, pp. 321-326;
9. Kučinskas, A.; Dobrovolskas, V.; Bonifacio, P., Cool stars as tracers of multiple stellar populations in the Galactic globular cluster 47 Tuc, 2014, Proceedings of Cool Stars, Stellar Systems and the Sun, vol. 18, pp. 327-334.
10. Černiauskas, A.; Kučinskas, A.; Bonifacio, P.; Andrievsky, S. M.; Korotin, S. A.; Dobrovolskas, V., Light element abundances in the Galactic globular cluster 47 Tuc, 2014, Mem. SAI, 85, 291 (4 p.);
11. R. Jančienė, A. Vektariene, G. Mikulskienė, L. Kosychova, G. Vektaris, *Synthesis, structure of 7-methyl-6,7-dihydroquinazolino-[3,2-a][1,5]benzodiazepin-13(5H)-one derivatives and study of the reaction mechanism by DFT analysis*, Chem. and Chem. Technol.: Proc. Intern. Conf., Kaunas, 25 April 2014, p. 202-207 ISSN 2351-5643.
12. V. Gineitytė, *Quasi-classical alternatives in quantum chemistry*, [arXiv](http://arxiv.org/abs/1402.6268) (2014); <http://arxiv.org/abs/1402.6268>

13. K. Černis, J. Zdanavičius, H. Selevičius. Astrometric observations of comet C/2013 R1 (Lovejoy) in Moletai Astronomical Observatory (Code 152). M.P.C. 86288 (2014 Jan 16).
14. I. Eglitis, K. Černis. Astrometric observations of 5 asteroids (17 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 86336 (2014 Jan 16).
15. K. Černis, J. Zdanavičius, H. Selevičius,. Astrometric observations of 74 asteroids (307 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 86337 (2014 Jan 16).
16. C. W. Hergenrother, R. P. Boyle, K. Černis. Astrometric observations of 15 asteroids (142 positions) and discovery of 5 new asteroids in Mt. Graham Observatory (Code 290). M.P.C. 86338 (2014 Jan. 16).
17. I. Eglitis, K. Černis. Astrometric observations of 9 asteroids (33 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 86778 (2014 Feb. 14).
18. K. Černis, J. Zdanavičius. Astrometric observations of 62 asteroids (292 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 86779 (2014 Feb. 14).
19. C. W. Hergenrother, R. P. Boyle, V. Laugalys, K. Černis. Astrometric observations of 14 asteroids (76 positions) in Mt. Graham Observatory (Code 290). M.P.C. 86780 (2014 Feb.14).
20. I. Eglitis, K. Černis. Astrometric observations of 10 asteroids (37 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 87200 (2014 Mar. 16).
21. K. Černis. Astrometric observations of 40 asteroids (205 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 87201-87202 (2014 Mar. 16).
22. R. P. Boyle, V. Čepas, K. Černis. Astrometric observations of 8 asteroids (48 positions) in Mt. Graham Observatory (Code 290). M.P.C. 87204 (2014 Mar.16).
23. I. Eglitis, K. Černis. Astrometric observations of 10 asteroids (28 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 87618 (2014 Apr. 15).
24. K. Černis, K. Milašius. Astrometric observations of 88 asteroids (235 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 87620 (2014 Apr. 15).
25. M. Holman, R. P. Boyle, C. W. Hergenrother, K. Černis. Astrometric observations of 9 asteroids (65 positions) in Mt. Graham Observatory (Code 290). M.P.C. 87621 (2014 Apr.15).
26. I. Eglitis, K. Černis. Astrometric observations of 8 asteroids (21 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 88086 (2014 May. 14).
27. K. Černis, K. Milašius. Astrometric observations of 40 asteroids (83 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 88087 (2014 May. 14).
28. R. P. Boyle, K. Černis. Astrometric observations of 7 asteroids (40 positions) in Mt. Graham Observatory (Code 290). M.P.C. 88088 (2014 May.14).

29. R. P. Boyle, K. Černis. Astrometric observations of comet C/2012 K1 (Panstarrs) (10 positions) in Mt. Graham Observatory (Code 290). M.P.E.C. 2014-L52 (Jun.10).
30. R. P. Boyle, K. Černis. Astrometric observations of comet C/2012 K1 (Panstarrs) (16 positions) in Mt. Graham Observatory (Code 290). M.P.E.C. 2014-N57 (Jul. 9).
31. R. P. Boyle, K. Černis. Astrometric observations of comet C/2012 K1 (Panstarrs) (10 positions) in Mt. Graham Observatory (Code 290). M.P.C. 88410 (2014 Jun.13).
32. I. Eglitis, K. Černis. Astrometric observations of 11 asteroids (45 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 88462 (2014 Jun. 13).
33. K. Černis. Astrometric observations of 81 asteroids (176 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 88463 (2014 Jun. 13).
34. R. P. Boyle, K. Černis. Astrometric observations of 25 asteroids (115 positions) and discovery of 2 asteroids in Mt. Graham Observatory (Code 290). M.P.C. 88465 (2014 Jun.13).
35. R. P. Boyle, K. Černis. Astrometric observations of comet C/2012 K1 (Panstarrs) (26 positions) in Mt. Graham Observatory (Code 290). M.P.C. 88765 (2014 Jul.12).
36. I. Eglitis, K. Černis. Astrometric observations of 9 asteroids (33 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 88806 (2014 Jul. 12).
37. K. Černis, K. Milašius. Astrometric observations of 72 asteroids (246 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 88807 (2014 Jul. 12).
38. R. P. Boyle, K. Černis. Astrometric observations of 16 asteroids (77 positions) in Mt. Graham Observatory (Code 290). M.P.C. 88808 (2014 Jul.12).
39. I. Eglitis, K. Černis. Astrometric observations of 13 asteroids (29 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 89138 (2014 Aug. 10).
40. K. Černis. Astrometric observations of 92 asteroids (230 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 89139 (2014 Aug. 10).
41. R. P. Boyle, K. Černis. Astrometric observations of 9 asteroids (74 positions) in Mt. Graham Observatory (Code 290). M.P.C. 89140 (2014 Aug.10).
42. K. Černis, H. Selevicius. Astrometric observations of comet C/2014 E2 (Jacques) (27 positions) in Moletai Astronomical Observatory (Code 152). M.P.E.C. 2014-Q43 (Aug.25).
43. K. Černis, H. Selevicius. Astrometric observations of comet C/2014 E2 (Jacques) (32 positions) in Moletai Astronomical Observatory (Code 152). M.P.E.C. 2014-R69 (Sep.7).
44. K. Černis, H. Selevicius. Astrometric observations of comet C/2014 E2 (Jacques) (59 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 89397 (2014 Sep.9).

45. I. Eglitis, K. Černis. Astrometric observations of 8 asteroids (24 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 89456 (2014 Sep. 9).
46. K. Černis, H. Selevičius. Astrometric observations of 45 asteroids (149 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 89458 (2014 Sep. 9).
47. M. Holman, R. P. Boyle, K. Černis. Astrometric observations of 2 asteroids (11 positions) in Mt. Graham Observatory (Code 290). M.P.C. 89459 (2014 Sep. 9).
48. K. Černis, H. Selevičius. Astrometric observations of two comets: C/2014 E2 (Jacques) and C/2014 Q3 (Borisov) in Moletai Astronomical Observatory (Code 152). M.P.E.C. 2014-S125 (Sep.30).
49. K. Černis, H. Selevičius. Astrometric observations of comets C/2014 E2 (Jacques) and C/2014 Q3 (Borisov) in Moletai Astronomical Observatory (Code 152). M.P.C. 89841 (2014 Oct. 8).
50. I. Eglitis, K. Černis. Astrometric observations of 16 asteroids (35 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 89895 (2014 Oct. 8).
51. K. Černis. Astrometric observations of 55 asteroids (175 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 89896 (2014 Oct. 8).
52. M. Holman, R. P. Boyle, K. Černis. Astrometric observations of 5 asteroids (29 positions) in Mt. Graham Observatory (Code 290). M.P.C. 89897 (2014 Oct. 8).
53. I. Eglitis, K. Černis. Astrometric observations of 16 asteroids (40 positions) in Baldone Astrophysical Observatory (Code 069). M.P.C. 90446 (2014 Nov. 6).
54. K. Černis, J. Zdanavicius, K. Zdanavicius. Astrometric observations of 60 asteroids (185 positions) in Moletai Astronomical Observatory (Code 152). M.P.C. 90447 (2014 Nov. 6).
55. R. P. Boyle, K. Černis. Astrometric observations of 31 asteroids (191 positions) in Mt. Graham Observatory (Code 290). M.P.C. 90449 (2014 Nov. 6).

### **Pranešimų konferencijose tezės ir abstraktai**

1. J. Tamuliene. Is  $\text{Co}_m\text{O}_n$  nanoparticle a precursor for the electron driven processes? Ab initio study. Kick-off Meeting COST Action CM 1301 „Chemistry for Electron-Induced Nanofabrication“, March 19-22, 2014, Erlangen, Germany. Book of Abstracts, p. 60.
2. G. Kerevičius. Simulation of the intensity spectrum of autoionizing states of rubidium atom excited by electron impact. 57Th Scientific Conference for Students of Physics and Natural Sciences „Open Readings 2014“, March 19-21, 2014, Vilnius, Programme and Abstracts, p. 272.
3. L. Baliulyte, J. Tamuliene. Ab initio study of deprotonation of sulfonamide. Nanotechnology: Research and Development, Conference book, Lithuanian Academy of Sciences Press, Vilnius, 2014, p. 63.



4. V. Hrytsko, P. Markush, A. Kupliauskiene, A. Borovik. Classification of low-energy core excited autoionizing states of Barium. 6<sup>th</sup> CEPAS 2014, 9-12 July, 2014, Bratislava, Slovakia, Contributrd papers, Eds. Š. Matejček, P. Papp, O. Bogar, p. 74-76.
5. J. Tamuliene, L. G. Romanova, V. S. Vukstich, A. V. Papp, A. V. Snegursky. Electron-impact-induced tryptophan molecule fragmentation. 6<sup>th</sup> CEPAS 2014, 9-12 July, 2014, Bratislava, Slovakia, Contributrd papers, Eds. Š. Matejček, P. Papp, O. Bogar, p. 97-98.
6. A. V. Snegursky, V. S. Vukstich, L. G. Romanova, J. Tamuliene, I. G. Megela, A. V. Papp, L. Baliulyte. On the influence of low- and high-energy ionizing radiation on the amino acid molecule sructure: proline. 6<sup>th</sup> CEPAS 2014, 9-12 July, 2014, Bratislava, Slovakia, Contributrd papers, Eds. Š. Matejček, P. Papp, O. Bogar, p. 254-256.
7. P. Jönsson, J. Bieroń, T. Brage, J. Ekman, Ch. Froese Fischer, G. Gaigalas, J. Grumer, M. Godefroid, "The computational atomic structure group - code development and available resources". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 113.
8. P. Jönsson, J. Ekman, Ch. Froese Fischer, G. Gaigalas, M. Godefroid, H. Hartman, P. Rynkun, "Atomic structure calculations with spectroscopic accuracy implications for laboratory work". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 112.
9. Ch. Froese Fischer, G. Gaigalas, P. Rynkun, "Some lifetimes of  $4p^54d$  ( $J = 1$ ) levels in the Kr-like sequence". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 93.
10. L. Radžiūtė, D. Kato, G. Gaigalas, P. Jönsson, P. Rynkun, V. Jonauskas, S. Kučas. "Energy levels of  $Er^{3+}$  free ion". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 91.
11. V. Jonauskas, A. Alkauskas, A. Kynienė, P. Rynkun, G. Gaigalas, R. Kisielius, S. Kučas, Š. Masys, G. Merkelis, "Theoretical investigation of spectroscopic properties of  $W^{26+}$  ion". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 90.
12. V. Jonauskas, S. Kučas, Š. Masys, A. Kynienė, A. Alkauskas, P. Rynkun, G. Gaigalas, R. Kisielius, G. Merkelis, Gintaras, "Cascade emission in ebit plasma of  $W^{26+}$  ion". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 73.
13. J. Bieroń, Ch. Froese Fischer, S. Fritzsche, G. Gaigalas, I.P. Grant, P. Indelicato, P. Jönsson, P. Pyykkö, "*Ab initio* MCDHF calculations of electron-nucleus interactions". *ICAMDATA 2014: 9th international conference on atomic and molecular data and their applications*, 21-25 September 2014, Jena, Germany, p. 23.
14. Boyle, Richard P.; Janusz, R.; Straizys, V.; Laugalys, V., 2014, Deep Seven-color Photometry and Classification of Stars in the Cyg OB2 Association // American Astronomical Society, AAS Meeting #223, #442.03.
15. Cepas, V.; Boyle, R. P.; Zdanavicius, J.; Straizys, V.; Zdanavicius, K.; Laugalys, V., 2014, Dust ring at the Camelopardalis and Perseus border // American Astronomical Society, AAS Meeting #223, #346.21.
16. Ženovienė R., Tautvaišienė G., Stonkutė E., Bertašius V., Chemical composition of a kinematic stellar groups in the solar neighbourhood // Open Readings 2014, book of abstract 2014, 56.

17. A. Kononovicius, V. Gontis, Controlling the Dynamics of Herding Dominant Financial Market, *International Conference on Statistical Physics*, Rhodes, Greece, July 5-12, 2014, psl. 80 (and report).
18. V. Gontis, A. Kononovicius, Financial herding of three agent groups under the impact of exogenous noise, *International Conference on Statistical Physics*, Rhodes, Greece, July 5-12, 2014, psl. 54-55 (and report).
19. J. Ruseckas, R. Kazakevičius, B. Kaulakys, Power-law statistics from nonlinear stochastic differential equations driven by Lévy stable noise, *International Conference on Statistical Physics SigmaPhi 2014*, Rhodes, Greece, 7-11 July 2014 (plenarinis pranešimas).
20. B. Kaulakys, M. Alaburda and J. Ruseckas,  $1/f$  noise from the nonlinear transformations of the variables, *Intern. Conf. on Statistical Physics SigmaPhi2014*, Rhodes, Greece, July 7-12, 2014, p.74-75 (and Report).
21. B. Kaulakys, M. Alaburda and J. Ruseckas,  $1/f$  noise from the nonlinear transformations of the variables, *Intern. Conf. on Statistical Physics SigmaPhi2014*, Rhodes, Greece, July 7-12, 2014, p.74-75 (and Report).
22. G. Juzeliūnas, B. Anderson and I. B. Spielman, Spin-orbit coupling for cold atoms without light, *International Conference on Quantum Optics*, February 23 - March 01, 2014, Obergurgl, Tirol, Austria (and Report).
23. G. Juzeliūnas, A. Acus, J. Ruseckas, I. Spielman, L. Santos, S.-W. Su, and S.-C. Gou, Position-dependent spin-orbit coupling for ultracold atoms, *Intern. Conf. on Atomic Physics ICAP-2014*, Washington DC, USA, August 3-8, 2014 (and Report).
24. G. Juzeliūnas, Spin-orbit coupled ultra cold atoms, *3rd TLL-COLIMA Joint Workshop on manipulation of light by matter and matter by light*, Hsinchu, Taiwan, October 18 – 19, 2014 (and Report).
25. J. Ruseckas, G. Juzeliūnas, I. Spielman, A. Celi, P. Massignan, N. Goldman and M. Lewenstein, Artificial gauge fields in extra dimensions, *3rd TLL-COLIMA Joint Workshop on manipulation of light by matter and matter by light*, Hsinchu, Taiwan, October 18 – 19, 2014 (and Report).
26. G. Juzeliūnas, Multi-component slow and stationary light, *3rd TLL-COLIMA Joint Workshop on manipulation of light by matter and matter by light*, Hsinchu, Taiwan, October 18 – 19, 2014 (and Report).
27. J. Ruseckas and G. Juzeliūnas, Rydberg-Raman slow light: A spectroscopic tool to measure the interaction between the Rydberg atoms, *3rd TLL-COLIMA Joint Workshop on manipulation of light by matter and matter by light*, Hsinchu, Taiwan, October 18 – 19, 2014 (and Report).
28. T. Andrijauskas, G. Juzeliūnas, Flux Lattices for Periodically Driven Ultra-Cold Atoms, *16-th International Conference-School Advanced Materials and Technologies*, Palanga, Lithuania, August 27-31, 2014.
29. I. I. Beterov, T. Andrijauskas, D. B. Tretyakov, V. M. Entin, E. A. Yakshina, I. I. Ryabtsev and S. Bergamini, Simulating Jaynes-Cummings dynamics in mesoscopic ensembles of interacting atoms, *Open Readings 2014*, Vilnius, Lithuania, March 19-21, 2014.
30. H. R. Hamed and G. Juzeliūnas, Phase-Sensitive Kerr Nonlinearity for Closed Loop Quantum Systems, *16-th International Conference-School Advanced Materials and Technologies*, Palanga, Lithuania, August 27-31, 2014.

31. A. Kononovicius, V. Gontis, Leadership phenomenon in the agent-based herding model, *Open Readings 2014*, Vilnius, Lithuania, March 19-21, 2014, psl. 201 (and poster).
32. A. Kononovicius, J. Ruseckas, Non-extensive and extensive statistics in the agent-based herding model, *Open Readings 2014*, Vilnius, Lithuania, March 19-21, 2014, psl. 52 (and report).
33. A. Kononovicius, V. Gontis, Controlling the collective behavior in the agent-based herding model, *Verhandlungen DPG (VI) 49*, Dresden, Germany, March 30-April 4, 2014, SOE 6.15 (and poster).
34. B. Kaulakys, M Alaburda and J. Ruseckas, Modeling long-range dependent inverse cubic distributions by nonlinear stochastic differential equations, *77<sup>th</sup> Annual Meeting of the DPG*, March 30-April 04 2014, Dresden, p. 396, SOE 6.7 (and Poster).
35. A. Kononovicius, V. Gontis, Sudėtingų socialinių vyksmų aiškinimas siejant jų mikroskopinius ir makroskopinius aprašymus, *Fizinių ir technologijos mokslų tarpdalykiniai tyrimai (4-oji jaunųjų mokslininkų konferencija)*, Lietuvos mokslų akademija, Vilnius, Lietuva, vasario 11, 2014, psl. 11-13 (ir pranešimas). Pastaba: tėzės išleistos elektroniniu pavidalu (CD).
36. R. Jančienė, G. Mikulskienė, A. Vektarienė, T. Javorskis, Z. Staniulytė, *Synthesis of 5-substituted 1,5-benzodiazepine derivatives containing quinoxalin-4-one moiety*, BOS 2014: 8th biennial international conference on organic synthesis : program and abstract book, Vilnius, July 6-9 2014. p. 71.
37. E. Anisimovas, A. Eckardt, B. M. Anderson, and G. Juzeliūnas, *Control of cold atoms in optical lattices with magnetic pulses: Magnetic shaking*, Quantum Technologies V, Krakow (Poland), 08-12 September 2014 (Report).
38. T. Andrijauskas and G. Juzeliūnas, *Flux lattices for periodically driven ultra-cold atoms*, Quantum Technologies V, Krakow (Poland), 08-12 September 2014 (Report).
39. A. Acus, E. Norvaišas, and Ya. Shnir, *Higher charge hopfion interaction from product ansatz*, XXI Nuclear Physics Workshop “Marie and Pierre Curie”, Kazimierz Dolny (Poland), 23-28 September 2014 (Report).
40. E. Anisimovas, F. Gerbier, T. Andrijauskas, and N. Goldman, *Design of laser-coupled honeycomb optical lattices supporting Chern insulators*, Quantum Gases and Quantum Coherence, Levico Terme (Italy), 23-28 May 2014 (Poster).
41. A. Matulis, *Translation symmetry and edge modes*, 2014 International Summer Workshop on Graphene and Related Materials, el-Jadida (Morocco), 16-26 June 2014 (Report).
42. A. Matulis, *Application of optical beams to Dirac electrons*, 2014 International Summer Workshop on Graphene and Related Materials, el-Jadida (Morocco), 16-26 June 2014 (Report).
43. M. Račiūnas, G. Žlabys, and E. Anisimovas, *Tunable Lieb and Kagome lattices for ultr-cold ytterbium atoms*, Open Readings 2014, Vilnius (Lithuania) 19-21 March 2014 (Poster).
44. D. Šatkovskienė. Lithuanian Presidency Conference *Structural Change Promoting Gender Equality In Research Organizations*, The Parliament Magazine, 02/12/2013.

## Pranešimai konferencijose

1. Jonauskas V. žodinis pranešimas "Single and double ionization by electron impact" ADAS Workshop 2014, Varšuva (rugsėjo 28-30 d), Lenkija.
2. R. Kisielius žodinis pranešimas "ADAMANT duomenų bazė". Tarptautinis seminaras „Atomic data and its incorporation into Cloudy“ Belfate, QUB, Jungtinė Karalystė.
3. Čepas, V.; Boyle, R. P.; Zdanavičius, J.; Straizys, V.; Zdanavičius, K.; Laugalys, stendinis pranešimas "Dust ring at the Camelopardalis and Perseus border", American Astronomical Society, AAS Meeting #223, Vašingtonas, JAV, 2014 01.05-09.
4. Kučinskas, A.; Dobrovolskas, V.; Bonifacio, P.; Caffau, E.; Ludwig, H.-G.; Steffen, M.; Spite, M., Oxygen in the early Galaxy: OH lines as tracers of oxygen abundance in extremely metal-poor giant stars, 18th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun, 2014 m. birželio 9-13 d., Arizona, JAV;
5. Kučinskas, A.; Dobrovolskas, V.; Bonifacio, P., Cool stars as tracers of multiple stellar populations in the Galactic globular cluster 47 Tuc, 18th Cambridge Workshop on Cool Stars, Stellar Systems and the Sun, 2014 m. birželio 9-13 d., Arizona, JAV;
6. Š. Mikolaitis, žodinis pranešimas GALHIS projekto konferencijoje, "Gaia-ESO survey, results of the first data", 2014 m. vasario 19 d., Paryžius
7. Š. Mikolaitis, žodinis pranešimas GALHIS projekto konferencijoje, "Gaia-ESO survey: the chemical Galaxy structure from iDR1", 2014 m. liepos 20 d., Nica
8. Š. Mikolaitis, Observatoire Cote d'azur pranešimas "Galactic archaeology from Gaia-ESO survey and AMBRE data", 2014 m. rugsėjo 21 d., Nica
9. Š. Mikolaitis, kvietinis pranešimas 2-joje Gaia-ESO mokslinėje konferencijoje, "The chemical structure of the Galactic discs", 2014 m. lapkričio 10 – 13 d., Porto.
10. G. Tautvaišienė, žodinis pranešimas 2-joje Gaia-ESO mokslinėje konferencijoje, "Open Clusters as Tracers of Stellar Evolution", 2014 m. lapkričio 10 – 13 d., Porto.
11. G. Tautvaišienė "C, N, and O abundance gradients in the Galactic disc", 2014 m. gegužės 19 – 23 d. 4-je astrobiologijos konferencijoje "Biopožymiai laike ir erdvėje", Bergenas, Norvegija;
12. G. Tautvaišienė, A. Drazdauskas, E. Stonkutė, Š. Mikolaitis, G. Barisevičius, E. Puzeras, Y. Chorniy "The Gaia-ESO Survey: CNO abundances in Galactic open clusters and field stars", 2014 m. birželio 29 – liepos 3 d. Europos astronomų draugijos konferencijoje "European Week of Astronomy and Space Science", Ženeva, Šveicarija;
13. P. Dalin, N. Pertsev, V. Perminov, V. Romejko, A. Dubietis, R. Balčiūnas, K. Černis, M. Zalcik "Noctilucent clouds as an indicator on long-term trends in climate change of the sub-arctic region", stendinis pranešimas POLAR konferencijoje (Salekhard, YNAO, Rusija), 2014 m. balandžio 13 – 17 d.
14. Ženovienė R., Tautvaišienė G., Stonkutė E., Bertašius V. "Chemical composition of a kinematic stellar groups in the solar neighbourhood", žodinis pranešimas konferencijoje Open Readings 2014 m. kovo 19 – 21 d., Vilnius.
15. A. Deltuva, Calculation of transfer and charge-exchange reactions in three- and four-body systems, ECT\* workshop "From nuclear structure to particle-transfer reactions and back II", Trentas (Italija), 2014 m. lapkričio 10 – 14 d.
16. D. Jurčiukonis, T. Gajdosik, A. Juodagalvis. Light neutrino mass spectrum with one or two right-handed singlet fermions added, 37-oji aukštųjų energijų tarptautinė fizikos konferencija (ICHEP 2014), Valensija (Ispanija), 2014 m. liepos 2-9 d.
17. D. Jurčiukonis, T. Gajdosik, A. Juodagalvis. Neutrino mass spectrum from the seesaw mechanism with the second Higgs doublet added, 26-oji tarptautinė neutrino fizikos ir astrofizikos konferenciją (NEUTRINO 2014), Bostonas (JAV), 2014 m. gegužės 31 – birželio 8 d.

18. [T. Gajdosik](#), D. Jurčiukonis, A. Juodagalvis, Impact of Majorana Neutrinos to Hadronic Tau Decays, 13-a tarptautinė Tau leptonų fizikos konferencija (TAU 2014), Achenas, (Vokietija), 2014 m. rugsėjo 15-19 d.
19. [E. Norvaišas](#), D. Jurčiukonis, Baryon form factors in canonically quantized SU(3) Skyrme model, Tarptautinė konferencija “Kvantinės fizikos fundamentalios problemos“ Rehovot, Izraelis. 2014 kovo 23-27 d.
20. [A. Acus](#), Calculation of eigens with geometrical algebra rotors, ["10th International Conference on Clifford Algebras and their Applications in Mathematical Physics"](#), Tartu, 4–9 August 2014.
21. [A. Acus](#), Higher charge hopfion interaction from product ansatz, ["XXI Nuclear Physics Workshop “Marie & Pierre Curie”"](#), Kazimierz Dolny, Poland, 23–28th September, 2014.

### Mokslo populiarinimo straipsniai, knygos

1. E. Pakštienė „Astronomijos ir astronautikos įdomybės“, „Lietuvos Dangus 2015“ p. p. 3-42;
2. G. Tautvaišienė “Gravitacinių bangų egzistavimo įrodymų paieškos, „Lietuvos Dangus 2015“ p. p. 43-46;
3. E. Pakštienė “Ambicinga ROSETTA kosminė misija”, „Lietuvos Dangus 2015“ p. p. 47-50;
4. E. Pakštienė ir G. Tautvaišienė „Pirmieji lietuviški nanopalydovai LituaniaSAT-1 ir LitSat-1 pateisino lūkesčius“, „Lietuvos Dangus 2015“ p. p. 51-56 ;
5. K. Černis, „2014 metais atrasti asteroidai“, „Lietuvos Dangus 2014“, p. p. 68-76;
6. A. Kazlauskas, S. Lovčikas, G. Tautvaišienė „Dešimtoji tyrėjų naktis“, „Lietuvos Dangus 2015“, p. p. 83-90;
7. A. Kazlauskas „Datos ir jubiliejai 2015 metais“, „Lietuvos Dangus 2015“, p. p. 91-105;
8. V. Straizys „Prieš 50 metų (tęsinys)“, „Lietuvos Dangus 2015“, p. p. 106-112;
9. A. Kazlauskas „Saulės ir Mėnulio užtemimai“ „Lietuvos Dangus 2015“, p. p. 107-108;
10. A. Kazlauskas „Planetų stebėjimo sąlygos“ „Lietuvos Dangus 2014“, p. p. 109-163;
11. A. Kazlauskas „Saulės ir Mėnulio tekos ir laidos momentai“ „Lietuvos Dangus 2015“, p. p. 144-156;
12. A. Kazlauskas „Saulės ir Mėnulio pusiaujinės koordinatės“, „Lietuvos Dangus 2015“, p. p. 157-169;
13. G. Tautvaišienė “Saulės audros pavojingos ne tik kosminėms misijoms”, VU naujienos, 2014-01-09
14. G. Tautvaišienė “Bandymams nufotografuoti Lietuvos nanopalydovus turime pusmetį”, VU naujienos 2014-03-05
15. G. Tautvaišienė “Gravitacinių bangų egzistavimo paieškos pasiekė apogėjų”, VU naujienos 2014-03-19, delfi.lt 2014-03-23
16. G. Tautvaišienės interviu “Habil. dr. G. Tautvaišienė – Tarptautinės fundamentinės ir taikomosios fizikos sąjungos viceprezidentė”, VU naujienos portalas, I. Švaraitė, 2014-11-12
17. G. Tautvaišienės interviu “Apie –vaigždžių pažinimą ir – pripažinimą”, I. Švaraitė, 2014-11-26
18. G. Tautvaišienės interviu “Tęsia antikos mokslininkų pradėtą darbą – inventorizuoja galaktiką”, LRT laida “Mokslo ekspresas”, Kauno diena 2014-12-07, Vilniaus diena 2014-12-09.
19. Kupliauskienė. Breito ir Vignerio formulė, Visuotinė Lietuvos enciklopedija.
20. A. Grinevičiūtė, P. Bogdanovičius, G. Gaigalas, A. Kupliauskienė. TFAI mokslininkų dar-

- buose – Vilniaus atomo teorijos mokyklos tąsa. Universitas Vilnensis, Nr. 2, p.6 (2014).
21. A. Grinevičiūtė, P. Bogdanovičius, G. Gaigalas, A. Kupliauskienė. TFAI mokslininkų darbuose – Vilniaus atomo teorijos mokyklos tąsa. <http://naujienos.vu.lt/pokalbiai/tfai-mokslininku-darbuose-vilniaus-atomo-teorijos-mokyklos-tasa/>.