



TÄIENDUSEKS  
EESTI TEADUSTE AKADEEMIA  
AASTARAAMATULE

XXIV (51)

EESTI TEADUSTE AKADEEMIA  
AKADEEMIKUTE  
PUBLIKATSIOONID

2018

VEEBIVÄLJAANNE  
TALLINN 2019

## **PUBLIKTSIOONID 2018**

Alljärgnev 2018. aasta publikatsioonide nimekiri on koostatud akadeemikute aastaaruannetes esitatud materjalide alusel. Publikatsioonid on liigitatud rubriikideks:

- raamatud ja muud iseseisvad väljaanded, kus akadeemikud esinevad autorite, koostajate või toimetajatena;
- artiklid teaduslikes ajakirjades ja kogumikes;
- artiklid populaarteaduslikes ja publitsistlikes ajakirjades ning artiklikogumikes;
- elektroonilised publikatsioonid; patendid.

Nimekirjas pole konverentsiettekannete teese ning ajalehtedes avaldatud materjale.

### **Jaan AARIK**

Duenas, S., Castan, H., Carcia, H., ... , Aarik, J. The role of defects in the resistive switching behavior of Ta<sub>2</sub>O<sub>5</sub>-TiO<sub>2</sub>-based metal–insulator–metal (MIM) devices for memory applications. – *Journal of Electronic Materials*, 2018, 47 (9), 4938–4943. doi.org/10.1007/s11664-018-6105-0

### **Hillar ABEN**

Aben, H., Anton, J., Peterson, P., Õis, M. On the fracture mechanics of Prince Rupert's drops. – *Proceedings of the First International Conference on Theoretical, Applied and Experimental Mechanics*. Springer, 2018, 158–160.

### **Jüri ALLIK**

Allik, J. The almost unbearable lightness of personality. – *Journal of Personality*, 2018, 86 (1), 109–123. doi: 10.1111/jopy.12329

Allik, J., Realo, A. Cross-cultural perspectives on personality and individual differences: Origin of personality and individual differences. – Zeigler-Hill, V., Shackelford, T. K. (eds). *The SAGE Handbook of Personality and Individual Differences*. Sage, Thousand Oaks, CA, 2018, 303–320.

Guo, J. Z., Lei, Z., Wan, J., ... , Allik, J., ... , Anbarjafari, G. Dominant and complementary emotion recognition from still images of faces. – *IEEE Access*, 2018, 6, 26391–26403. doi: 10.1109/access.2018.2831927

Kulkarni, K., Corneanu, C., Ofodile, I., ... , Allik, J., ... Anbarjafari, G. Automatic recognition of facial displays of unfelt emotions. – *IEEE Transactions on Affective Computing*, 2018, 1–1. doi: 10.1109/TAFFC.2018.2874996

Lauk, K., Allik, J. A puzzle of estonian science: How to explain unexpected rise of the scientific impact. – *Trames*, 2018, 22 (4), 329–344. doi: 10.3176/tr.2018.4.01

\* \* \*

Allik, J., Hřebíčková, M., Realo, A. Unusual configurations of personality traits indicate multiple patterns of their coalescence. – *Frontiers in Psychology*, 2018, 9, 187. doi: 10.3389/fpsyg.2018.00187

Allik, J., Mõttus, R., Realo, A., Rozgonjuk, D. What makes young russians happy and satisfied with their lives? – *Sage Open*, 2018, 8 (3), 1-11. doi: 10.1177/2158244018803136

McCrae, R. R., Mõttus, R., Hřebíčková, M., Realo, A., Allik, J. Source method biases as implicit personality theory at the domain and facet levels. – *Journal of Personality*, 2018, doi: 10.1111/jopy.12435

Mill, A., Kõõts-Ausmees, L., Allik, J., Realo, A. The role of co-occurring emotions and personality traits in anger expression. – *Frontiers in Psychology*, 2018, 9 (123). doi: 10.3389/fpsyg.2018.00123

Realo, A., van Middendorp, H., Koots-Ausmees, L., Allik, J., Evers, A. W. M. Role of personality traits in reporting the development of adverse drug reactions: a prospective cohort study of the Estonian general population. – *BMJ open*, 2018, 8 (7). doi: 10.1136/bmjopen-2018-022428

## **Toomas ASSER**

Kadastik-Eerme, L., Taba, N., Asser, T., Taba, P. The increasing prevalence of Parkinson's disease in Estonia 2018. – *Acta Neurologica Scandinavica*, 2018, 138 (3), 251–258. doi: 10.1111/ane.12948

Perin, A., Galbiati, T. F., Gambatesa, E., ... , European Neurosurgery Simulation Study Group (ENSSG) (*incl.* Asser, T.), *et al.* Filling the gap between the OR and virtual simulation: a European study on a basic neurosurgical procedure. – *Acta Neurochirurgica*, 2018, 160 (11), 2087–2097.

\* \* \*

Asser, T. Eesti Teaduste Akadeemia 80. juubeliaasta puhul. – *Eesti Arst*, 2018, 97 (3), 115.

Asser, T. Tartu Ülikooli rektori neurokirurgiaprofessor Toomas Asseri kõne akadeemilise aasta avaaktusel. – Eesti Arst, 2018, 97 (8), 403–404.

Asser, T. Tervisevaldkonna teaduse ja innovatsiooni strateegia hetkeseis ja tulevik. TÜ arstiteaduskonna aastapäeva teaduskonverents, 12. oktoober 2018. – Eesti Arst, 2018, 97 (Lisa 2).

Toomsoo, T., Pool, A.-H., Kerner, R., ... , Asser, T., *et al.* Vanuse mõju substantia nigra hüperhohogeensusele Parkinsoni tõve patsientidel ja tervetel isikutel. – *Ibid.*, 16.

Vetkas, A., Asser, T., Rätsep, T. Geneetiline eelsoodumus ebasoodsaks kohanemiseks aneurüsmaatilise subarahnoidaalse hemorraagia järel. – *Ibid.*, 17.

Bergmann, M., Zahharova, A., Ereline, J., Asser, T., Gapeyeva, H., Vahtrik, D. Terapeutiliste harjutuste ja funktsionaalse elektrostimulatsiooni akuutne mõju selja sirutajalihase aktiveerumisele traumaatilise seljaajukahjustusega patsientidel. – *Ibid.*, 25.

Kadastik-Eerme, L., Taba, N., Asser, T., Taba, P. Parkinsoni tõve haigestumus – korduv epidemioloogiline uuring Tartu linnas ja maakonnas. – *Ibid.*, 31.

Toomsoo, T., Kadastik-Eerme, L., Asser, T., Taba, P. Lõhnade eristamise erinevused Parkinsoni tõve patsientidel ja tervetel kontrollidel. – *Ibid.*, 43.

Saar, S., Lepp, J., Popov, A., ... , Asser, T., *et al.* Raskete vigastuste käsitlemine Eestis. – Eesti Arst, 2018, 97 (11), 623–627.

Starkopf, J., Talving, P., Siigur, U., Peedu, A., Luts, K., Asser, T. Aastaks 2025 Eestile üks põhja- ja lõunalinnakuga ülikoolihaigla. – Eesti Arst, 2018, 97 (4), 179–180.

\* \* \*

Kadastik-Eerme, L., Taba, N., Asser, T., Taba, P. Response to the letter by Scorza et al. – *Acta Neurologica Scandinavica*, 2018, 10.1111/ane.12970

## **Jaan EHA**

Kepler, T., Kuusik, K., Lepner, U., Starkopf, J., Zilmer, M., Eha, J., Lieberg, J., Kals, J. Kaugisheeliline eelkohastumine vähendab alajäseme arterite revaskulariseerival operatsioonil perioperatiivset neerukahjustust. – Eesti Arst, 2018, 97 (Lisa 2), 15.

Paapstel, K., Kals, J., Eha, J., Tootsi, K., Ottas, A., Piir, A., Jakobson, M., Lieberg, J., Zilmer, M. Inverse relations of serum phosphatidylcholines and lysophosphatidylcholines with vascular

damage and heart rate in patients with atherosclerosis. – *Nutrition, Metabolism and Cardiovascular Diseases*, 2018, 28 (1), 44–52. doi: 10.1016/j.numecd.2017.07.011

Saar, A., Marandi, T., Ainla, T., Fischer, K., Blöndal, M., Eha, J. The risk-treatment paradox in non-ST-elevation myocardial infarction patients according to their estimated GRACE risk. – *International Journal of Cardiology*, 2018, 272, 26–32. doi: 10.1016/j.ijcard.2018.08.015

Teeäär, T., Serg, M., Paapstel, K., Kals, J., Kals, M., Zilmer, M., Eha, J., Kampus, P. Heart rate reduction decreases central blood pressure in sick sinus syndrome patients with a permanent cardiac pacemaker. – *Journal of Human Hypertension*, 2018, 32 (5), 377–384. doi: 10.1038/s41371-018-0051-4

\* \* \*

Alver, M., Palover, M., Saar, A., ... , Eha, J., *et al.* Recall by genotype and cascade screening for familial hypercholesterolemia in a population-based biobank from Estonia. – *Genetics in Medicine*, 2018, 1–8. doi: 10.1038/s41436-018-0311-2

Kotecha, D., Bax, J. J., Casadei, B., ... , Eha, J., *et al.* Roadmap for cardiovascular education across the European Society of Cardiology: inspiring better knowledge and skills, now and for the future. – *European Heart Journal*, 2018, 1–11. doi: 10.1093/eurheartj/ehy058

Neumann, F.-J., Sousa-Uva, M., Ahlsson, A., ... , Eha, J., *et al.* 2018 ESC/EACTS Guidelines on myocardial revascularization. – [https://www.researchgate.net/publication/327227707\\_2018\\_ESCEACTS\\_Guidelines\\_on\\_myocardial\\_revascularization](https://www.researchgate.net/publication/327227707_2018_ESCEACTS_Guidelines_on_myocardial_revascularization)

## **Jaan EINASTO**

Einasto, J. Cosmology paradigm changes. – *Annual Review of Astronomy and Astrophysics*, 2018, 56, 1.

Einasto, J., Suhhonenko, I., Liivamägi, L. J., Einasto, M. Extended percolation analysis of the cosmic web. – *Astronomy & Astrophysics*, 2018, 616, A141.

Einasto, M., Deshev, B., Lietzen, H., ... , Einasto, J. Infalling groups and galaxy transformations in the cluster A2142. – *Astronomy & Astrophysics*, 2018, 610, A82.

Einasto, M., Gramann, M., Park, C., ... , Einasto, J., Saar, E. Supercluster A2142 and collapse in action: infalling and merging groups and galaxy transformations. – *Astronomy & Astrophysics*, 2018, 620, A149.

## Jüri ENGELBRECHT

Engelbrecht, J. (koost ja toim). Teadusmõte Eestis (IX). Teadus ja ühiskond. – Tallinn : Eesti Teaduste Akadeemia, 2018. – 175 lk.

Engelbrecht, J., Tammiksaar, E. (koost ja toim). Eesti teaduse 100 aastat. – Tallinn : Post Factum, 2018. – 189 lk.

\* \* \*

Engelbrecht, J., Peets, T., Tamm, K. Electromechanical coupling of waves in nerve fibres. – *Biomechanics and Modeling in Mechanobiology*, 2018, 17, 1771–1783. doi: 10.1007/s10237-018-1055-2

Engelbrecht, J., Peets, T., Tamm, K. Solitons modelled by Boussinesq-type equations. – *Mechanics Research Communications*, 2018, 9, 62–65.

Engelbrecht, J., Peets, T., Tamm, K. Soliton trains in dispersive media. – *Low Temperature Physics/Fizika Nizkikh Temperatur (AM Kosevich Memorial issue)*, 2018, 44, 7, 887–892.

Engelbrecht, J., Peets, T., Tamm, K., Laasmaa, M., Vendelin, M. On complexity of signal propagation in nerve fibres. – *Proceedings of the Estonian Academy of Sciences*, 2018, 67 (1), 28–38.

Engelbrecht, J., Salupere, A., Berezovski, A., Peets, T., Tamm, K. On nonlinear waves in media with complex properties. – Altenbach, H., *et al.* (eds). *Generalized Models and Non-Classical Approaches in Complex Materials I* (Memorial volume of G. A. Maugin). Springer, 2018, 275–286. (Advanced Structured Materials; 89).

Engelbrecht, J., Tamm, K., Peets, T. Modeling of complex signals in nerve fibers. – *Medical Hypotheses*, 2018, 120, 90–95. doi.org/10.1016/j.mehy.2018.08.021

Rendon de la Torre, S., Kalda, J., Kitt, R., Engelbrecht, J. Fractal and multifractal analysis of complex networks: Estonian network of payments. – *European Physics Journal B*, 2017, 90, 12, 234, 1–8.

\* \* \*

Engelbrecht, J. Akadeemia 80 : [arvamusi akadeemikutelt]. – *Eesti Teaduste Akadeemia aastaraamat XXIII (50) 2017*. Eesti Teaduste Akadeemia, Tallinn, 2018, 72–78.

Engelbrecht, J. Põhikirja muudatustest. – *Ibid.*, 139–140.

Engelbrecht, J. Eestikeelsed teadlased maailmas. – Raag, R., Valge, J. (toim). Sõida tasa üle silla. EKSA, Tallinn-Tartu, 2018, 328–335.

Engelbrecht, J. Energy and values explained : [Foreword]. – Christophorou, L. G. Emerging Dynamics: Science, Energy, Society and Values. Springer, Cham, 2018, vii–viii.

Engelbrecht, J. The knowledge on complexity should be a part of contemporary education. – Proc. 2nd Int. Conf. on Future Education: Effective Learning in an Age of Increasing Speed, Complexity & Uncertainty, Rome, 16–18 Nov., 2017. Rome, 2018, 16–21; Eruditio, 2018, 2 (4), 27–37.

Engelbrecht, J. Kolm printsi Serendipist. – Akadeemia, 2018, 5, 771–783.

Engelbrecht, J. Praha 1968 ja tänapäev. – Tuna, 2018, 3, 2–8.

Engelbrecht, J. Saateks. – Engelbrecht, J. (koost ja toim). Teadusmõte Eestis (IX). Teadus ja ühiskond. Eesti Teaduste Akadeemia, Tallinn, 2018, 5–8.

Engelbrecht, J. Ühiskond kui kompleksüsteem ja väärtused. – *Ibid.*, 113–124.

Engelbrecht, J. Saateks. – Õiger, K. (koost). 100 aastat TTÜ ehitusinsenere. Sihtasutus Professor Karl Õigeri Stipendiumifond, Tallinn, 2018, 6–7.

Engelbrecht, J. Tänapäeva haridusest ja kompleksüsteemidest. – Akadeemia, 2018, 11, 1936–1955.

Engelbrecht, J. Üheksa korda mõõda, üks kord lõika. Raamatust H. Rosling „Factfulness“ („Faktitäius“). – Horisont, 2018, 5, 61.

Engelbrecht, J., Järv, J. Preface: Ten years of the renewed Proceedings of the Estonian Academy of Sciences. – Proceedings of the Estonian Academy of Sciences, 2018, 67 (4), 303–304.

\* \* \*

Engelbrecht, J. Waves in continuous media: classical theory. – Altenbach, H., Öschner, A. (eds). Encyclopedia of Continuum Mechanics. Springer, Berlin, Heidelberg, doi: [https://doi.org/10.1007/978-3-662-53605-6\\_230-1](https://doi.org/10.1007/978-3-662-53605-6_230-1)

Engelbrecht, J. Nonlinear waves in continuous media. – *Ibid.*, doi: [https://doi.org/10.1007/978-3-662-53605-6\\_235-1](https://doi.org/10.1007/978-3-662-53605-6_235-1)

Engelbrecht, J., Tamm, K., Peets, T. Primary and secondary components of nerve signals. – arXiv: submit/2507386 [physics.bio-ph] 13 Dec 2018

Peets, T., Tamm, K., Simson, P., Engelbrecht, J. On solutions of a Boussinesq-type equation with displacement-dependent nonlinearity: a soliton doublet. – Wave Motion (Samsonov special issue). doi: <https://doi.org/10.1016/j.wavemoti.2018.11.001>

Tamm, K., Engelbrecht, J., Peets, T. Temperature changes accompanying signal propagation in axons. – arXiv: 1812.02296v1 [physics.bio-ph] 4 Dec 2018

### **Ene ERGMA**

Ergma, E. Eksoplaneedid – kas lootus või lootusetus? – Mõõt või meelevald. Tallinn, 2018, 49–55. (Eesti Rooma Klubi toimetised; 1).

Ergma, E. Sada rida Eesti loodusest: Loodus ja inimene. – Eesti Loodus, 2018, 8, 36–37.

### **Arvi FREIBERG**

Freiberg, A., Garab, G. Basic optical spectroscopy for light harvesting. – Croce, R., van Grondelle, R., van Amerongen, H., van Stokkum, I. (eds). Light Harvesting in Photosynthesis. CRC Press, Boca Raton, 2018, 381–425.

Pieper, J., Artene, P., Rätsep, M., Pajusalu, M., Freiberg, A. Evaluation of electron–phonon coupling and spectral densities of pigment–protein complexes by line-narrowed optical spectroscopy. – The Journal of Physical Chemistry B, 2018, 122, 9289–9301.

Rätsep, M., Muru, R., Freiberg, A. High temperature limit of photosynthetic excitons. – Nature Communications, 2018, 9, 99.

\* \* \*

Freiberg, A. Järjekordse teadusreformi agoonia: [arvamusi akadeemikutelt]. – Eesti Teaduste Akadeemia aastaraamat XXIII (50) 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 79–80.

### **Vladimir HIŽNJAKOV**

Hizhnyakov, V., Pae, K., Boltrushko, V., Köppel, H. Vibronic states in conical intersections: manifestations of centrifugal energy and non-adiabaticity in optical spectra of Jahn-Teller systems. – Journal of Physics: Conference Series, 2018, 1148, 012002.

Hizhnyakov, V., Peet, V., Orlovskii, Yu. V. On the use of twisted photons for spectroscopy of impurity centers in crystals. – Physical Review B, 2018, 97. doi: [10.1103/PhysRevB.97.035115](https://doi.org/10.1103/PhysRevB.97.035115)



Loot, A., Hizhnyakov, V. Modeling of enhanced spontaneous parametric down-conversion in plasmonic and dielectric structures with realistic waves. – *Journal of Optics*, 2018, 20 (5). doi: 055502.10.1088/2040-8986/aab6c0

Shelkan, A., Klopov, M., Hizhnyakov, V. Enhanced mobility of high-frequency discrete breathers in a monatomic chain with odd anharmonicity. – [arxiv.org/abs/1812.03496](https://arxiv.org/abs/1812.03496)

## **Jaak JÄRV**

Arujõe, M., Ploom, A., Mastitski, A., Järv, J. Influence of steric effects in solid-phase azapeptide synthesis. – *Tetrahedron Letters*, 2018, 59 (21), 2010–2013. doi: 10.1016/j.tetlet.2018.04.021

Kukk, S., Järv, J. Small structural changes at the N-position of the tropane core control the mechanism of nortropine derivatives binding to dopamine transporter. – *Chemistry Select*, 2018, 3 (23), 6581–6584. doi: 10.1002/slct.201801532

Kukk, S., Loog, O., Hiltunen, J. V., Järv, J. *In vitro* ligand binding kinetics explains the pharmacokinetics of [18F]FE-PE2I in dopamine transporter PET imaging. – *ACS Medicinal Chemistry Letters*, 2018, 9 (12), 1292–1296. doi: 10.1021/acsmchemlett.8b00504

Mastitski, A., Niinepuu, S., Haljasorg, T., Järv, J. One-pot synthesis of protected benzyhydrazines from acetals. – *Organic Preparations and Procedures International*, 2018, 50 (4), 416–423. doi: 10.1080/00304948.2018.1468983

Vellemäe, E., Mastitski, A., Järv, J., Hiltunen, J. V. A convenient methanolysis in the synthesis of carfentanyl. – *Organic Preparations and Procedures International*, 2018, 50 (5), 522–526. doi: 10.1080/00304948.2018.1526034

\* \* \*

Engelbrecht, J., Järv, J. Preface : Ten years of the renewed Proceedings of the Estonian Academy of Sciences. – *Proceedings of the Estonian Academy of Sciences*, 2018, 67 (4), 303–304.

## **Ain-Elmar KAASIK**

Kaasik, A.-E. Ludvig Puusepp – neurokirurgia rajaja. – Engelbrecht, J., Tammiksaar, E. (koost ja toim). *Eesti teaduse 100 aastat. Post Factum*, Tallinn, 2018, 161–163.

## **Anne KAHRU**

Bastos, C. A. P., Faria, N., Ivask, A., Bondarenko, O. M., Kahru, A., Powell, J. Ligand-doped copper oxo-hydroxide nanoparticles are effective antimicrobials. – *Nanoscale Research Letters*, 2018, 13, 111. doi: 10.1186/s11671-018-2520-7

Blinova, I., Lukjanova, A., Muna, M., Vija, H., Kahru, A. Evaluation of the potential hazard of lanthanides to freshwater microcrustaceans. – *Science of The Total Environment*, 2018, 642, 1100–1107. doi: 10.1016/j.scitotenv.2018.06.155

Blinova, I., Vija, H., Lukjanova, A., Muna, M., Syvertsen-Wiig, G., Kahru, A. Assessment of the hazard of nine (doped) lanthanides-based ceramic oxides to four aquatic species. – *Science of The Total Environment*, 2018, 612, 1171–1176. doi: 10.1016/j.scitotenv.2017.08.274

Bondarenko, O. M., Sihtmäe, M., Kuzmičiova, J., Ragelienė, L., Kahru, A., Daugelavičius, R. Plasma membrane is the target of rapid antibacterial action of silver nanoparticles in *Escherichia coli* and *Pseudomonas aeruginosa*. – *International Journal of Nanomedicine*, 2018, 13, 6779–6790. doi: 10.2147/IJN.S177163

Kubo, A.-L., Capjak, I., Vrček, I. V., ... , Kahru, A. Antimicrobial potency of differently coated 10 and 50 nm silver nanoparticles against clinically relevant bacteria *Escherichia coli* and *Staphylococcus aureus*. – *Colloids and Surfaces B: Biointerfaces*, 2018, 170, 401–410. doi: 10.1016/j.colsurfb.2018.06.027

Pikula, K. S., Zakharenko, A. M., Chaika, V. V., ... , Kahru, A., *et al.* Effects of carbon and silicon nanotubes and carbon nanofibers on marine microalgae *Heterosigma akashiwo*. – *Environmental Research*, 2018, 166, 473–480. doi: 10.1016/j.envres.2018.06.005

Rosenberg, M., Vija, H., Kahru, A., Keevil, C. W., Ivask, A. Rapid *in situ* assessment of Cu-ion mediated effects and antibacterial efficacy of copper surfaces. – *Scientific Reports*, 2018, 8, 8172. doi: 10.1038/s41598-018-26391-8

Visnapuu, M., Rosenberg, M., Truska, E., ... , Kahru, A., *et al.* UVA-induced antimicrobial activity of ZnO/Ag nanocomposite covered surfaces. – *Colloids and Surfaces B: Biointerfaces*, 2018, 169, 222–232. doi: 10.1016/j.colsurfb.2018.05.009

## **Dimitri KALJO**

Kaljo, D. Geoloogia Instituut. – Liibek, T. (koost ja toim). Tallinna Tehnikaülikool 1919–2018. TTÜ Kirjastus, Tallinn, 2018, 435–440.

Kaljo, D. Good traditions deserve to be continued and supported. – *Estonian Journal of Earth Sciences*, 2018, 67 (1), 1–2.

Kaljo, D. Twelve years of the *Estonian Journal of Earth Sciences*: a survey of achievements and their bearing on Earth sciences in Estonia. – *Estonian Journal of Earth Sciences*, 2018, 67 (4), 223–224.

\* \* \*

Kaljo, D. Revolutsioonist geoloogias ja selle ilmingutest Eestis . – *Eesti Teaduste Akadeemia aastaraamat XXIII (50)*, 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 68–71.

### **Mart KALM**

Kalm, M. *Eesti arhitektuuri 100 aastat*. – Tallinn: Post Factum, 2018. – 204 lk.

Kalm, M. (koost). *EKA uus maja / Eesti Kunstiakadeemia*. – Tallinn: Eesti Kunstiakadeemia, 2018. – 151 lk.

\* \* \*

Kalm, M. Taka podobna, a taka różna. Architektura krajów bałtyckich w okresie międzywojennym / So similar and so different. Architecture in the Baltic states between the two wars. – *Architektura niepodległości w Europie Środkowej / Architecture of independence in Central Europe*. Międzynarodowe Centrum Kultury International Cultural Centre. Krakow, 2018, 188–206.

Kalm, M. When the people of the Baltics embraced the city. – Heikonen, J., Böök, N., Nissi, A., Vesikansa, K. (eds). *Kuin kissat Largo Argentinalla: flaneerausta ja assimilaatiota kaupunkitilassa*. Aalto-yliopiston arkkitehtuurin historian juhlakirjatoimitus. Helsinki, 2018, 126–130.

\* \* \*

Kalm, M. EKA tuleb Kalamajja. – Soe, B. (toim). *Õhus on Kalamaja*. Kirjastus Õhk, Tallinn, 2018, 186–189.

### **Mati KARELSON**

Ivanova, L., Tammiku-Taul, J., Garcia-Sosa, A. T., Sidorova, Y., Saarma, M., Karelson, M. Molecular dynamics simulations of the interactions between glial cell line-derived neurotrophic

factor family receptor GFR alpha 1 and small-molecule ligands. – ACS Omega, 2018, 3 (9), 11407–11414. doi: 10.1021/acsomega.8b01524

Ivanova, L., Tammiku-Taul, J., Sidorova, Y., Saarma, M., Karelson, M. Small-molecule ligands as potential GDNF family receptor agonists. – ACS Omega, 2018, 3 (1), 1022–1030. doi: 10.1021/acsomega.7b01932

\* \* \*

Ivanova, L., Karelson, M., Dobchev, D. A. Identification of natural compounds against neurodegenerative diseases using *in silico* techniques. – Molecules, 2018, 23, 1847. doi: 10.3390/molecules23081847

### **Marco KIRM**

Jansen, T., Gorobez, J., Kirm, M., *et al.* arrow band deep red photoluminescence of  $\text{Y}_2\text{Mg}_3\text{Ge}_3\text{O}_{12}:\text{Mn}^{4+},\text{Li}^+$  inverse garnet for high power phosphor converted LEDs. – ECS Journal of Solid State Science and Technology, 2018, 7 (1), R3086–R3092. doi: 10.1149/2.0121801jss

Jansen, T., Jüstel, T., Kirm, M., Kozlova, J., Mändar, H., Vielhauer, S., Khaidukov, N. M., Makhov, V. N. Thermal quenching of  $\text{Mn}^{4+}$  luminescence in  $\text{Sn}^{4+}$ -containing garnet hosts. – Optical Materials, 2018, 84, 600–605. doi: 10.1016/j.optmat.2018.07.061

Omelkov, S. I., Nagirnyi, V., Gundacker, S., Spassky, D. A., Auffray, E., Lecoq, P., Kirm, M. Scintillation yield of hot intraband luminescence. – Journal of Luminescence, 198, 260–271. doi: 10.1016/j.jlumin.2018.02.027

Jansen, T., Jüstel, T., Kirm, M., Vielhauer, S., Khaidukov, N. M., Makhov, V. N. Composition-dependent spectral shift of  $\text{Mn}^{4+}$  luminescence in silicate garnet hosts  $\text{CaY}_2\text{M}_2\text{Al}_2\text{SiO}_{12}$  ( $\text{M} = \text{Al}, \text{Ga}, \text{Sc}$ ). – *Ibid.*, 314–319. doi: 10.1016/j.jlumin.2018.02.054

### **Kalle KIRSIMÄE**

Blättler, C. L., Claire, M. W., Prave, A. R., Kirsimäe, K., *et al.* Two-billion-year-old evaporites capture Earth's great oxidation. – Science, 2018, 360, 320–323. doi: 10.1126/science.aar2687

Driese, S. G., Medaris, L. G., Kirsimäe, K., Somelar, P., Stinchcomb, G. E. Oxisol processes and geochemical constraints on duration of weathering for Neoproterozoic Baltic paleosol. – Precambrian Research, 2018, 310, 165–178. doi: 10.1016/j.precamres.2018.02.020

Härk, E., Jäger, R., Kasatkin, P. E., ... , Kirsimäe, K., Lust, E. The electrochemical activity of two binary alloy catalysts toward oxygen reduction reaction in 0.1 M KOH. – *Journal of the Solid State Electrochemistry*, 2018, 22, 31–40. doi: 10.1007/s10008-017-3720-2

Hynninen, A., Külaviir, M., Kirsimäe, K. Air-drying is sufficient pre-treatment for *in situ* visualization of microbes on minerals with scanning electron microscopy. – *Journal of Microbiological Methods*, 2018, 146, 77–82. doi: 10.1016/j.mimet.2018.02.007

Jäger, R., Kasatkin, P. E., Hark, E., ... , Kirsimäe, K., Lust, E. The effect of N precursors in Fe-N/C type catalysts based on activated silicon carbide derived carbon for oxygen reduction activity at various pH values. – *Journal of Electroanalytical Chemistry*, 2018, 823, 593–600. doi: 10.1016/j.jelechem.2018.06.040

Mänd, K., Kirsimäe, K., Lepland, A., *et al.* Authigenesis of biomorphic apatite particles from Benguela upwelling zone sediments off Namibia: The role of organic matter in sedimentary apatite nucleation and growth. – *Geobiology*, 2018, 16, 640–658. doi: 10.1111/gbi.12309

Paiste, K., Lepland, A., Zerkle, A. L., Kirsimäe, K., *et al.* Multiple sulphur isotope records tracking basinal and global processes in the 1.98 Ga Zaonega Formation, NW Russia. – *Chemical Geology*, 2018, 499, 151–164. doi: 10.1016/j.chemgeo.2018.09.025

Prave, A. R., Meng, F. W., Lepland, A., Kirsimäe, K., Kreitsmann, T., Jiang, C. Z. A refined late-Cryogenian – Ediacaran earth history of South China: Phosphorous-rich marbles of the Dabie and Sulu orogens. – *Precambrian Research*, 2018, 305, 166–176. doi: 10.1016/j.precamres.2017.11.022

Pärn, J., Affolter, S., Ivask, J., Johnson, S., Kirsimäe, K., *et al.* Redox zonation and organic matter oxidation in palaeogroundwater of glacial origin from the Baltic Artesian Basin. – *Chemical Geology*, 2018, 488, 149–161. doi: 10.1016/j.chemgeo.2018.04.027

Teppor, P., Jäger, R., Hark, E., ... , Kirsimäe, K., Lust, E. ORR activity and stability of Co-N/C catalysts based on silicon carbide derived carbon and the impact of loading in acidic media. – *Journal of the Electrochemical Society*, 2018, 165, F1217–F1223. doi: 10.1149/2.0961814jes

\* \* \*

Kirsimäe, K. Maapõuenägemus AD 2018. – Tinn, O., Kungla, K., Sarv, K., Põldsaar, K., Nirgi, T. (toim). Maapõuevisioon. Eesti Looduseuurijate Selts, Tartu, 2018, 26–29. (Schola Geologica XIV).

## **Ilmar KOPPEL**

Nummert, V., Piirsalu, M., Toom, L., Kesvatera, T., Leito, I., Koppel, I. A. Effect of charged and ortho substituents on  $^{17}\text{O}$  NMR chemical shifts of substituted phenyl tosylates in DMSO. – *Journal of Physical Organic Chemistry*, 2018, 31 (12), e3870. doi: 10.1002/poc.3870

## **Maarja KRUUSMAA**

Allotta, B., Costanzi, R., Ridolfi, A., Salvetti, O., Reggiannini, M., Kruusmaa, M., *et al.* The ARROWS Project: robotic technologies for underwater archaeology. – *IOP Conference Series: Materials Science and Engineering*, 2018, 364 (1), 012088. doi: 10.1088/1757-899X/364/1/012088

Fuentes-Pérez, J. F., Meurer, C., Tuhtan, J. A., Kruusmaa, M. Differential pressure sensors for underwater speedometry in variable velocity and acceleration conditions. – *IEEE Journal of Oceanic Engineering*, 2018, 43 (2), 418–426. doi: 10.1109/JOE.2017.2767786

Fuentes-Pérez, J. F., Silva, A. T., Tuhtan, J. A., García-Vega, A., ..., Kruusmaa, M., *et al.* 3D modelling of non-uniform and turbulent flow in vertical slot fishways. – *Environmental Modelling & Software*, 2018, 99, 156–169. doi.org/10.1016/j.envsoft.2017.09.011

Gkliva, R., Sfakiotakis, M., Kruusmaa, M. Development and experimental assessment of a Flexible robot fin. – 2018 IEEE International Conference on Soft Robotics (RoboSoft), 2018, 208–213.

Preston, V., Salumäe, T., Kruusmaa, M. Underwater confined space mapping by resource-constrained autonomous vehicle. – *Journal of Field Robotics*, 2018, 35 (7), 1122–1148. doi: 10.1002/rob.21806

Ristolainen, A., Kalev, K., Tuhtan, J. A., Kuusik, A., Kruusmaa, M. Hydromorphological classification using synchronous pressure and inertial sensing. – *IEEE Transactions on Geoscience and Remote Sensing*, 2018, 56 (6), 3222–3232.

Tuhtan, J. A., Fuentes-Perez, J. F., Toming, G., ... , Kruusmaa, M., *et al.* Man-made flows from a fish's perspective: autonomous classification of turbulent fishway flows with field data collected using an artificial lateral line. – *Bioinspiration & Biomimetics*, 2018, 13 (4), 046006. doi: 10.1088/1748-3190/aabc7

\* \* \*

Kruusmaa, M. Teadlase kuvand ja usaldusväärsus. – Engelbrecht, J. (koost ja toim). Teadusmõte Eestis (IX). Teadus ja ühiskond. Eesti Teaduste Akadeemia, Tallinn, 2018, 91–96.

\* \* \*

Muhammad, N., Fuentes-Perez, J. F., Tuhtan, J. A., Toming, G., Musall, M., Kruusmaa, M. Map-based localization and loop-closure detection from a moving underwater platform using flow features. – *Autonomous Robots*, 2018, 1–16. doi.org/10.1007/s10514-018-9797-3

\* \* \*

Kruusmaa, M., Aabloo, A., Abels, A., Leinus, R., Haldre, H., Pallin, P., Hindpere, E. Method and system for custom tailoring and retail sale of clothing. – *US Patent App.*, 2018, 15/602, 461.

Kruusmaa, M., Ristolainen, A., Kuusik, A. Device and method for measuring the parameters of fluid flow. – *US Patent App.*, 2018, 15/648, 020.

### **Valdek KULBACH**

Kulbach, V. Conceptual design of Estonian longest strait crossing. – *Industrial Construction and Engineering Structures / Промислове будівництво та інженерні споруди. Ukraine*, 2018, 7–11.

Kulbach, V. Lühimeenutusi ehitusteaduskonna ja TTÜ minevikust. – 100 aastat TTÜ ehitusinseneri. Professor Karl Õigepri Stipendiumifond, Tallinn, 2018, 223–227.

Kulbach, V. Tallinna Tehnikaülikool ja ehituskonstruksioonide areng Eestis. – *Ibid.*, 257–262.

Rattasepp, T., Aare, J., Kulbach, V. Nõmme suusatajate silla ehitusest – lootused ja tegelikkus. – *Ibid.*, 427–430.

### **Jarek KURNITSKI**

Kurnitski, J., Thalfeldt, M., van Weele, H., Toksoy, M., Carlsson, T., Vladykova Bednarova, P., Seppänen, O. Residential Heat Recovery Ventilation. *European Guidebook No 25. – REHVA*, 2018. – 94 p.

Voranan-Winqvist, C., Alapieti, T., Andersson, M. A., Mikkola, R., Pasanen, P., Kurnitski, J., Salonen, H. Julkisten uudisrakennusten sisäilmongelmat sekä ilmanvaihdon ja puumateriaalien vaikutukset sisäilman laatuun. Työsuojelurahaston hanke 115376. – *Rakennustekniikan laitos: Aalto-yliopisto, Insinööritieteiden korkeakoulu, Rakennustekniikan laitos*, 2018. – 90 p. – (Aalto-yliopiston julkaisusarja Tiede + Teknologia 4/2018; 4. Aalto University Publication Series).

\* \* \*

Ahmed, K., Sistonen, E., Simson, R., Kurnitski, J., Kesti, J., Lautso, P. Radiant panel and air heating performance in large industrial buildings. – *Building Simulation: An International Journal*, 2018, 11 (2), 293–303. doi: 10.1007/s12273-017-0414-8

Andersson, M. A., Salonen, H., Kurnitski, J. Mikrobi, endotoksiini ja Betaglukaanipitoisuuksien sekä pölyjen toksisuuden eroja maaseutu ja kaupunkirakennuksista kerätyissä pölyissä ja materiaalinäytteissä. – *Sisäilmastoseminaari 2018*. SIY Sisäilmatieto Oy, 2018, 65–70. (SIY Raportti; 36).

Mattila, M., Vornanen-Winqvist, C., Jerkku, I., Kurnitski, J. Ylipaineistuksen ja ilmanpitävyyden vaikutus rakenteiden kosteustekniseen toimintaan. – *Ibid.*, 345–350.

Castagnoli, E., Marik, T., Mikkola, R., Kredics, L., Andersson, M. A., Salonen, H., Kurnitski, J. Indoor Trichoderma strains emitting peptaibols in guttation droplets. – *Journal of Applied Microbiology*, 2018, 125, 1408–1422. doi: 10.1111/jam.13920

De Luca, F., Dogan, T., Kurnitski, J. Methodology for determining fenestration ranges for daylight and energy efficiency in Estonia. – Abbr, T., Rakha, M., Turrin, D., Macumber, F., Meggers, S. (eds). 2018 Proceedings of the Symposium on Simulation for Architecture and Urban Design: Symposium on Simulation for Architecture and Urban Design, TUDelft, Delft, The Netherlands, 4–7 June 2018. ACM, Rockcastle, 2018, 63–70.

De Luca, F., Simson, R., Kurnitski, J., Voll, H. Daylighting and energy performance design for single floor commercial hall buildings. – *Management of Environmental Quality: An International Journal*, 2018, 29 (4), 722–739. doi: 10.1108/MEQ-10-2017-0110.

Kurnitski, J. Advances in European residential ventilation systems in Nearly Zero Energy Buildings. – 39th AIVC - 7th TightVent & 5th Venticool Conference, Smart ventilation for buildings, 18–19 September 2018, Antibes Juan-Les-Pins, France. AIVC, 2018, 18–19.

Maivel, M., Ferrantelli, A., Kurnitski, J. Experimental determination of radiator, underfloor and air heating emission losses due to stratification and operative temperature variations. – *Energy and Buildings*, 2018, 166, 220–228. doi: 10.1016/j.enbuild.2018.01.061

Majak, J., Pohlak, M., Karjust, K., Eerme, M., Kurnitski, J., Shvartsman, B. S. New higher order Haar wavelet method: Application to FGM structures. – *Composite Structures*, 201, 72–78. doi: 10.1016/j.compstruct.2018.06.013

Thalfeldt, M., Kurnitski, J., Latõšov, E. Exhaust air heat pump connection schemes and balanced heat recovery ventilation effect on district heat energy use and return temperature. – *Applied Thermal Engineering*, 2018, 128, 402–414. doi: 10.1016/j.applthermaleng.2017.09.033



Vornanen-Winqvist, C., Järvi, K., Toomla, S., ... , Kurnitski, J., Andersson, M. A. Ilmanvaihdon ylipaineistuksen vaikutus koulurakennuksen mitattuun ja koettuun sisäilman laatuun. – Sisäilmastoseminaari 2018. SIY Sisäilmatieto Oy, 2018, 351–356. (SIY Raportti; 36).

Võsa, K.-V., Ferrantelli, A., Kull, T.-M., Kurnitski, J. Experimental analysis of emission efficiency of parallel and serial connected radiators in EN442 test chamber. – Applied Thermal Engineering, 2018, 132, 531–544. doi: 10.1016/j.applthermaleng.2017.12.109

\* \* \*

Kurnitski, J. Hoonete energiatohususe imeline maailm. – Eesti Vabariigi preemiad 2018. Teadus. F. J. Wiedemanni keeleauhind. Sport. Kultuur. Eesti Teaduste Akadeemia, Tallinn, 2018, 100–123 .

\* \* \*

Ahmed, K., Carlier, M., Feldmann, C., Kurnitski, J. A new method for contrasting energy performance and near-zero energy building requirements in different climates and countries. – Energies, 2018, 11 (6), 1–22. doi: 10.3390/en11061334

Castagnoli, E., Andersson, A., Mikkola, R., Kurnitski, J., Salonen, H. Airborne toxicity of a non-ionic alcohol ethoxylate surfactant and wetting agent used in cleaning chemicals. – Indoor Air 2018: The 15th Conference of the International Society of Indoor Air Quality & Climate (ISIAQ) Philadelphia, PA, USA 22–27 July, 2018. International Society for Indoor Air Quality and Climate (ISIAQ), 2018, 1–8.

Castagnoli, E., Salo, J., Toivonen, M., ... , Kurnitski, J., Salonen, H. An evaluation of boar spermatozoa as a biosensor for the detection of sublethal and lethal toxicity. – Toxins, 2018, 10 (11). doi: 10.3390/toxins10110463

Ferrantelli, A., Võsa, K., Kurnitski, J. Optimization of radiators, underfloor and ceiling heater towards the definition of a reference ideal heater for energy efficient buildings. – Applied Sciences, 2018, 8 (12), #2477. doi: 10.3390/app8122477

Ferrantelli, A., Võsa, K.-V., Kurnitski, J. Towards the definition of a reference ideal radiator for the assessment of heat emission efficiency in buildings. – IOP Conference Series: Materials Science and Engineering (#012034). IOP Publishing Ltd., 2018, 1–8. doi:10.1088/1757-899X/415/1/012034

Järvi, K., Vornanen-Winqvist, C., Mikkola, R., Kurnitski, J., Salonen, H. Online questionnaire as a tool to assess symptoms and perceived indoor air quality in a school environment. – Atmosphere, 2018, 9 (270). doi: 10.3390/atmos9070270

Kurnitski, J., Ahmed, K., Hasu, T., Kalamees, T., Lolli, N., Lien, A., Thorsell, J., Johansson, J. NZEB energy performance requirements in four countries vs. European commission recommendations. – Proceedings of the REHVA Annual Meeting Conference Low Carbon Technologies in HVAC: REHVA Annual Meeting Conference Low Carbon Technologies in HVAC, Brussels, Belgium , 23 April 2018. REHVA, 2018.

Selkäinaho, J., Harmo, P., Salkinoja-Salonen, M., Mikkola, R., Salonen, H., Kurnitski, J., Visala, A. Water vapour mobilises building related non-volatile chemicals and mycotoxins and may be used to remove substances of potential healthhazard from indoor surfaces. – Proceedings of the ROOMVENT Conference, 2–5 June 2018, Aalto University, Espoo, Finland. SCANVAC, 2018.

Toomla, S., Lestinen, S., Kilpeläinen, S., Leppä, L., Kosonen, R., Kurnitski, J. Experimental investigation of air distribution and ventilation efficiency in an ice rink arena. – International Journal of Ventilation, 2018. doi: 10.1080/14733315.2018.1437881

Vinha, J., Salminen, M., Salminen, K., Kalamees, T., Kurnitski, J., Kiviste, M. Internal moisture excess of residential buildings in Finland. – Journal of Building Physics, 2018, 1–20. doi: 10.1177/1744259117750369

Vornanen-Winqvist, C., Järvi, K., Toomla, S., ... , Kurnitski, J. Ventilation positive pressure intervention effect on indoor air quality in a school building with moisture problems. – International Journal of Environmental Research and Public Health, 2018, 15 (230). doi: 10.3390/ijerph15020230

Vornanen-Winqvist, C., Salonen, H., ... , Kurnitski, J. Effects of ventilation improvement on measured and perceived indoor air quality in a school building with a hybrid ventilation system. – International Journal of Environmental Research and Public Health, 2018, 15 (7), 1414. doi: 10.3390/ijerph15071414.

## **Urmas KÕLJALG**

Nilsson, R. H., Taylor, A. F. S., Adams, R. I., ..., Kõljalg, U., Abarenkov, K. Taxonomic annotation of public fungal ITS sequences from the built environment – a report from an April 10-11, 2017 workshop (Aberdeen, UK). – Mycokeys, 2018, 28, 65–82. doi: 10.3897/mycokeys.28.20887

Zamora, J. C., Svensson, M., Kirschner, R., ... , Kõljalg, U., *et al.* Considerations and consequences of allowing DNA sequence data as types of fungal taxa. – Ima Fungus, 2018, 9 (1), 167–175. doi: 10.5598/imafungus.2018.09.01.10

Tedersoo, L., Kõljalg, U., Bahram, M., *et al.* High-level classification of the Fungi and a tool for evolutionary ecological analyses. – *Fungal Diversity*, 2018, 90, 135–159. doi: 10.1007/s13225-018-0401-0

Wetzel, F. T., Bingham, H. C., Groom, Q., Haase, P., Kõljalg, U., *et al.* Unlocking biodiversity data: Prioritization and filling the gaps in biodiversity observation data in Europe. – *Biological Conservation*, 2018, 221, 78–85. doi.org/10.1016/j.biocon.2017.12.024

\* \* \*

Kõljalg, U. Arhiivide kullaaug. – *Eesti Teaduste Akadeemia aastaraamat XXIII (50)*, 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 63–65.

Kõljalg, U. Fülogeneetika ja süstemaatika komisjon. – *Eesti Teaduste Akadeemia aastaraamat XXIII(50)*, 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 36–37; *Ingl: Committee on Phylogeny and Taxonomy. – Estonian Academy of Sciences, Year Book XXIII(50)*, 2017. *Estonian Acad. Sci.*, Tallinn, 2018, 41–42.

## **Jakob KÜBARSEPP**

Kolnes, M., Kübarsepp, J., Sergejev, F., Kolnes, M. Adhesive wear of WC- and TiC- based friction stir welding tool materials for aluminium alloys welding. – *Proc. of EuroPM 2018 Congress & Exhibition. October 14–18, 2018, Bilbao, Spain. European Powder Metallurgy Association*, 2018, 1–6.

Kolnes, M., Mere, A., Kübarsepp, J., Viljus, M., Maaten, B. Microstructure evolution of TiC cermets with ferritic AISI 430L steel binder. – *Powder Metallurgy*, 2018, 61 (3), 197–209.

Lille, H., Ryabchikov, A., Kõo, J., Adoberg, E., Mikli, V., Kübarsepp, J., Peetsalu, P. Evolution of residual stresses in PVD coatings by means of tubular substrate length variation. – *Materials Research Proceedings*, 2018, 6, 131–136.

Tarraste, M., Kübarsepp, J., Juhani, K., Mere, A., Kolnes, M., Viljus, M., Maaten, B. Ferritic chromium steel as binder metal for WC cemented carbides. – *International Journal of Refractory Metals and Hard Materials*, 2018, 73, 183–191.

\* \* \*

Kulu, P., Kübarsepp, J., Laaneots, R. Eesti tehnika teaduskeele ja terminite arendusest Tallinna Tehnikaülikoolis. – *Allkivi-Metsoja, K., Nemvalts, P., Põldra, H. (toim). VI Eesti teaduskeele konverents, detsember, 2018. Tallinna Ülikool, Tallinn, 2018, 19–20.*

## **Agu LAISK**

Laisk, A. Fotosüntees – mustvalge ja värviline. – Eesti Vabariigi preemiad 2018. Teadus. F. J. Wiedemanni keeleauhind. Sport. Kultuur. Eesti Teaduste Akadeemia, Tallinn, 2018, 38–63.

Laisk, A. Sõnad, mõtted, sarnasused – svingides valitud harmoonial. – Engelbrecht, J. (koost ja toim). Teadusmõte Eestis IX. Teadus ja ühiskond. Eesti Teaduste Akadeemia, Tallinn, 2018, 97–105.

## **Valter LANG**

Lang, V. Läänemeresoome tulemised. – Tartu : Tartu Ülikooli kirjastus, 2018. – 320 lk. – (Muinasaja teadus; 28).

Russow, E., Lang, V. (koost ja toim). Pühakud, piiskopid, linnad ja linnused. Ajarännakud kesk- ja varauusaega. Uurimusi Jaan Tamme auks. – Tallinn-Tartu : Tallinna Ülikool, Tartu Ülikool, 2018. – 376 lk. – (Muinasaja teadus; 27).

\* \* \*

Lang, V. Läänemeresoome juurte sasipundar. – Tutulus 2017, 2018, 5–8.

\* \* \*

Lang, V. The Eastern Baltic. – Haselgrove, C., Realy-Salisbury, K., Wells, P. S. (eds). The Oxford Handbook of the European Iron Age. Oxford University Press, 2018. Dx.doi.org/10.1093/oxfordhb/9780199696826.013.28

## **Ülo LEPIK**

Lepik, Ü. Minu tee eesti mehaanikas. – Engelbrecht, J., Kutser, M. (toim). Mehaanika Eestis – 100 aastat. Tallinna Tehnikaülikool, Kübeneetika Instituut, Tallinn, 2018, 111–116. (Research Report; 324).

## **Margus LOPP**

Aid, T., Koel, M., Lopp, M., Vaher, M. Metal-catalyzed degradation of cellulose in ionic liquid media. – Inorganics, 2018, 78 (6), 1–11. doi: 10.3390/inorganics6030078

Lopušanskaja, E., Paju, A., Järving, I., Lopp, M. Synthesis of cyclic 3-aryl-substituted 1,2-dicarbonyl compounds via Suzuki cross-coupling reactions. – *Synthesis*, 2018, 50 (9), 1883–1890. doi: 10.1055/s-0036-1591543.

Maljutenko, K., Borovkov, V., Kananovich, D., Järving, I., Lopp, M. Aerobic cascade oxidation of substituted cyclopentane-1,2-diones using metalloporphyrin catalysts. – *Tetrahedron*, 2018, 74 (6), 661–664. doi: 10.1016/j.tet.2017.12.009

## **Enn LUST**

Härk, E., Jäger, R., Kasatkin, P. E., ... , Lust, E. The electrochemical activity of two binary alloy catalysts toward oxygen reduction reaction in 0.1 M KOH. – *Journal of Solid State Electrochemistry*, 2018, 22 (1), 22–31. doi: 10.1007/s10008-017-3720-2

Härmas, R., Palm, R., Härmas, M., ... , Lust, E. Influence of porosity parameters and electrolyte chemical composition on the power densities of non-aqueous and ionic liquid based supercapacitors. – *Electrochimica Acta*, 2018, 283, 931–948. doi: 10.1016/j.electacta.2018.06.115

Jäger, R., Kasatkin, P. E., Härk, E., ... , Lust, E. The effect of N precursors in Fe-N/C type catalysts based on activated silicon carbide derived carbon for oxygen reduction activity at various pH values. – *Journal of Electroanalytical Chemistry*, 2018, 823, 593–600. doi: 10.1016/j.jelechem.2018.06.040

Korjus, O., Aruvali, J., Kivi, I., Kodu, M., Lust, E., Nurk, G. Simultaneous operando characterization of crystallographic and electrochemical properties of Ni-Ce<sub>0.9</sub>Gd<sub>0.1</sub>O<sub>2</sub>-delta solid oxide fuel cell anode. – *Journal of the Electrochemical Society*, 2018, 165 (13), F1043–F1050. doi: 10.1149/2.0281813jes

Kuusik, I., Berholts, M., Kruusma, J., Kisand, V., Tõnisoo, A., Lust, E., Nõmmiste, E. Valence electronic structure of [EMIM][BF<sub>4</sub>] ionic liquid: photoemission and DFT+D study. – *Rsc Advances*, 2018, 8, 30298–30304. doi: 10.1039/c8ra05865b

Maide, M., Lillmaa, K., Salvan, L. K., Moller, P., Uibu, M., Lust, E., Nurk, G. Influence of electrolyte scaffold microstructure and loading of MIEC material on the electrochemical performance of RSOC fuel electrode. – *Fuel Cells*, 2018, 18 (6), 789–799. doi: 10.1002/fuce.201800087

Nurk, G., Kooser, K., Urpelainen, S., Käämbre, T., Joost, U., Kodu, M., Kivi, I., Kanarbik, R., Kukkk, E., Lust, E. Near ambient pressure X-ray photoelectron - and impedance spectroscopy study of NiO - Ce<sub>0.9</sub>Gd<sub>0.1</sub>O<sub>2</sub>-δ anode reduction using a novel dual-chamber

spectroelectrochemical cell. – Journal of Power Sources, 2018, 378, 589–596. doi: 10.1016/j.jpowsour.2017.12.080

Palm, R., Kurig, H., Aruväli, J., Lust, E. NaAlH<sub>4</sub>/microporous carbon composite materials for reversible hydrogen storage. – Microporous and Mesoporous Materials, 2018, 264, 8–12. doi: 10.1016/j.micromeso.2017.12.027

Pohl, M., Tallo, I., Jänes, A., Romann, T., Lust, E. Increasing the stability of very high potential electrical double layer capacitors by operando passivation. – Journal of Power Sources, 2018, 402, 53–61. doi: 10.1016/j.jpowsour.2018.09.018

Rauhala, T., Jalkanen, K., Romann, T., Lust, E., Omar, N., Kallio, T. Low-temperature aging mechanisms of commercial graphite/LiFePO<sub>4</sub> cells cycled with a simulated electric vehicle load profile—A post-mortem study. – Journal of Energy Storage, 2018, 20, 344–356. doi: 10.1016/j.est.2018.10.007

Ruzanov, A., Lembinen, M., Ers, H., García de la Vega, J. M., Lage-Estebanez, I., Lust, E., Ivaništšev, V. B. Density functional theory study of ionic liquid adsorption on circumcoronene shaped graphene. – The Journal of Physical Chemistry C, 2018, 122, 2624–2631. doi: 10.1021/acs.jpcc.7b12156

Semjonov, K., Lust, A., Kogermann, K., ... , Lust, E., Heinämäki, J. Melt-electrospinning as a method to improve the dissolution and physical stability of a poorly water-soluble drug. – European Journal of Pharmaceutical Sciences, 2018, 121, 260–268. doi: 10.1016/j.ejps.2018.06.004

Shpigel, N., Sigalov, S., Levi, M. D., Mathis, T., Daikhin, L., Jänes, A., Lust, E., Gogotsi, Y., Aurbach, D. *In situ* acoustic diagnostics of particle-binder interactions in battery electrodes. – Joule, 2018, 2 (5), 988–1003. doi: 10.1016/j.joule.2018.02.014

Tee, E., Tallo, I., Thomberg, T., Jänes, A., Lust, E. Steam and carbon dioxide co-activated silicon carbide-derived carbons for high power density electrical double layer capacitors. – Journal of the Electrochemical Society, 2018, 165 (10), A2357–A2364. doi: 10.1149/2.1261810jes

Teppor, P., Jäger, R., Härk, E., ... , Lust, E. ORR activity and stability of Co-N/C catalysts based on silicon carbide derived carbon and the impact of loading in acidic media. – Journal of the Electrochemical Society, 2018, 165 (14), F1217–F1223. doi: 10.1149/2.0961814jes

Valk, P., Nerut, J., Kanarbik, R., Tallo, I., Aruväli, J., Lust, E. Synthesis and characterization of platinum-cerium oxide nanocatalysts for methanol oxidation. – Journal of the Electrochemical Society, 2018, 165 (5), F315–F323. doi: 10.1149/2.0781805jes

Valk, P., Nerut, J., Kanarbik, R., Aruväli, J., Paiste, P., Tallo, I., Lust, E. Synthesis and characterization of platinum-praseodymium oxide nanocatalysts for methanol oxidation. – ECS Transactions, 2018, 86, 649–658. doi: 10.1149/08613.0649ecst

### **Tšeslav LUŠTŠIK**

Assylbayev, R., Lushchik, A., Lushchik, Ch., *et al.* Structural defects caused by swift ions in fluorite single crystals. – Optical Materials, 2018, 75, 196–203. doi.org/10.1016/j.optmat.2017.10.026

Lushchik, A., Lushchik, Ch., Vasil'chenko, E., Popov, A. I. Radiation creation of cation defects in alkali halide crystals: Review and today's concept. – Low Temperature Physics, 2018, 44 (4), 269–277. doi: 10.1063/1.5030448

Lushchik, Ch., Lushchik, A. Evolution of anion and cation excitons in alkali halide crystals. – Physics of the Solid State, 2018, 60 (8), 1487–1505. doi: 10.1134/S1063783418080164

### **Andres METSPALU**

Bipolar Disorder and Schizophrenia Working Group of the Psychiatric Genomics Consortium (*incl.* Metspalu, A.). Genomic dissection of bipolar disorder and schizophrenia, including 28 subphenotypes. – Cell, 2018, 173 (7), 1705–1715. doi: 10.1016/j.cell.2018.05.046

Evangelou, E., Warren, H. R., Mosen-Ansorena, D., ... , Metspalu, A., *et al.* Genetic analysis of over 1 million people identifies 535 new loci associated with blood pressure traits. – Nature Genetics, 2018, 50 (10), 1412–1425. doi: 10.1038/s41588-018-0205-x

Lee, J. J., Wedow, R., Okbay, A., ... , Metspalu, A., *et al.* Gene discovery and polygenic prediction from a genome-wide association study of educational attainment in 1.1 million individuals. – Nature Genetics, 2018, 50 (8), 1112–1121. doi: 10.1038/s41588-018-0147-3

Lu, Y., Pouget J. G., Andreassen, O. A., ... , Metspalu, A., *et al.* Genetic risk scores and family history as predictors of schizophrenia in Nordic registers. – Psychological Medicine, 2018, 48 (7), 1201–1208. doi: 10.1017/S0033291717002665

Mahajan, A., Taliun, D., Thurner, M., .... , Metspalu, A., *et al.* Fine-mapping type 2 diabetes loci to single-variant resolution using high-density imputation and islet-specific epigenome maps. – Nature Genetics, 2018, 50 (11), 1505–1513. doi: 10.1038/s41588-018-0241-6

Mahajan, A., Wessel, J., Willems, S. M., ..., Metspalu, A., *et al.* Refining the accuracy of validated target identification through coding variant fine-mapping in type 2 diabetes. – *Nature Genetics*, 2018, 50 (4), 559–571. doi: 10.1038/s41588-018-0084-1

Martin, A. R., Karczewski, K. J., Kerminen, S., ... , Metspalu, A., *et al.* Haplotype sharing provides insights into fine-scale population history and disease in Finland. – *American Journal of Human Genetics*, 2018, 102 (5), 760–775. doi.org/10.1016/j.ajhg.2018.03.003

Metspalu, A. ePerMed – Rise of scientific excellence and collaboration for implementing personalised medicine in Estonia – H2020. – *Impact*, 2018, 7, 53–55. doi.org/10.21820/23987073.2018.7.53

Ni, G., Moser, G., Schizophrenia Working Group of the Psychiatric Genomics Consortium (*incl.*, Metspalu, A.), Wray, N. R., Lee, S. H. Estimation of genetic correlation via linkage disequilibrium score regression and genomic restricted maximum likelihood. – *American Journal of Human Genetics*, 2018, 102 (6), 1185–1194. doi.org/10.1016/j.ajhg.2018.03.021

Pervjakova, N., Kukushkina, V., Haller, T., ... , Metspalu, A., Mägi, R. Genome-wide analysis of nuclear magnetic resonance metabolites revealed parent-of-origin effect on triglycerides in medium very low-density lipoprotein in PTPRD gene. – *Biomarkers in Medicine*, 2018, 12 (5), 439–446. <https://doi.org/10.2217/bmm-2018-0020>

Qi, T., Wu, Y., Zeng, J., ... , eQTLGen Consortium (*incl.* Metspalu, A.), *et al.* Identifying gene targets for brain-related traits using transcriptomic and methylomic data from blood. – *Nature Communications*, 2018, 9 (1), 2282. doi: 10.1038/s41467-018-04558-1

Xue, A., Wu, Y., Zhu, Z., ... , eQTLGen Consortium (*incl.* Metspalu, A. ), *et al.* Genome-wide association analyses identify 143 risk variants and putative regulatory mechanisms for type 2 diabetes. – *Ibid.*, 2941. doi: 10.1038/s41467-018-04951-w

Takeuchi, F., Akiyama, M., Matoba, N., *et al.* Interethnic analyses of blood pressure loci in populations of East Asian and European descent. – *Ibid.*, 5052. doi: 10.1038/s41467-018-07345-0

Rimfeld, K., Krapohl, E., Trzaskowski, M., ... , Metspalu, A., Plomin, R. Genetic influence on social outcomes during and after the Soviet era in Estonia. – *Nature Human Behaviour*, 2018, 2 (4), 269–275. doi.org/10.1038/s41562-018-0332-5

Sung, J. Y., Winkler, T. W, de Las Fuentes, L., .... , Metspalu, A., *et al.* A large-scale multi-ancestry genome-wide study accounting for smoking behavior identifies multiple significant loci for blood pressure. – *American Journal of Human Genetics*, 2018, 102 (3), 375–400. doi: 10.1016/j.ajhg.2018.01.015



Zhou, B., Bentham, J., Di Cesare, M., ... , Metspalu, A., *et al.* Contributions of mean and shape of blood pressure distribution to worldwide trends and variations in raised blood pressure: a pooled analysis of 1018 population-based measurement studies with 88.6 million participants. – *International Journal of Epidemiology*, 2018, 47 (3), 872–883. doi.org/10.1093/ije/dyy016

Tambets, K., Yunusbayev, B., Georgi Hudjashov, G., ... , Metspalu, A., *et al.* Genes reveal traces of common recent demographic history for most of the uralic speaking populations. – *Genome Biology*, 2018, 19 (1), 139. doi: 10.1186/s13059-018-1522-1

Tanskanen, T., van den Berg, L., Välimäki, N., ... , Metspalu A., *et al.* Genome-wide association study and meta-analysis in Northern European populations replicate multiple colorectal cancer risk loci. – *International Journal of Cancer*, 2018, 142 (3), 540–546. doi: 10.1002/ijc.31076

Tedja, M. S., Wojciechowski, R., Hysi, P. G., ... , Metspalu, A., *et al.* Genome-wide association meta-analysis highlights light-induced signaling as a driver for refractive error. – *Nature Genetics*, 2018, 50 (6), 834–848. doi: 10.1038/s41588-018-0127-7

Trajanoska, K., Morris, J. A., Oei, L., ... , GEFOS/GENOMOS consortium and the 23andMe research team (*incl.* Metspalu, A.). Assessment of the genetic and clinical determinants of fracture risk: genome wide association and mendelian randomisation study. – *BMJ*, 2018, 362. doi.org/10.1136/bmj.k3225

van der Lee, S. J., Teunissen, C. E., Pool, R., ... , Metspalu, A., *et al.* Circulating metabolites and general cognitive ability and dementia: Evidence from 11 cohort studies. – *Alzheimer's & Dementia*, 2018, 14 (6), 707–722. doi.org/10.1016/j.jalz.2017.11.012

Tynkkynen, J., Chouraki, V., van der Lee, S. J., ... , Metspalu, A., *et al.* Association of branched-chain amino acids and other circulating metabolites with risk of incident dementia and Alzheimer's disease: A prospective study in eight cohorts. – *Ibid.*, 723–733. doi.org/10.1016/j.jalz.2018.01.003

Wray, N. R., Ripke, S., Mattheisen, M., ... , Metspalu, A., *et al.* Genome-wide association analyses identify 44 risk variants and refine the genetic architecture of major depression. – *Nature Genetics*, 2018, 50 (5), 668–681. doi: 10.1038/s41588-018-0090-3

Zeng, J., de Vlaming, R., Wu, Y., ... , Metspalu, A., *et al.* Signatures of negative selection in the genetic architecture of human complex traits. – *Ibid.*, 746–753. doi: 10.1038/s41588-018-0101-4

Yang, Y., Zhao, H., Boomsma, D. I., ... , International Headache Genetics Consortium (*incl.* Metspalu, A.), *et al.* Molecular genetic overlap between migraine and major depressive disorder. – *European Journal of Human Genetics*, 2018, 26, 1202–1216. doi.org/10.1038/s41431-018-0150-2

\* \* \*

Metspalu, A. Eesti teaduse tippkeskuste nõukogu. – Eesti Teaduste Akadeemia aastaraamat XXIII(50), 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 41; Ingl: Council for Estonian Centres of Excellence in Research. – Estonian Academy of Sciences, Year Book XXIII(50), 2017. Estonian Acad. Sci., Tallinn, 2018, 46–47.

\* \* \*

Alver, M., Palover, M., Saar, A., ... , Metspalu, A., Kathiresan, S., Esko, T. Recall by genotype and cascade screening for familial hypercholesterolemia in a population-based biobank from Estonia. – *Genetics in Medicine*, 2018. doi.org/10.1016/j.biopsych.2018.11.024

Barrios, C., Zierer, J., Würtz, P., Haller, T., Metspalu, A., *et al.* Circulating metabolic biomarkers of renal function in diabetic and non-diabetic populations. – *Scientific Report*, 2018, 8 (15249). doi: 10.1038/s41598-018-33507-7

Brainstorm Consortium, Anttila, V., Bulik-Sullivan, B., ... , Metspalu, A., *et al.* Analysis of shared heritability in common disorders of the brain. – *Science*, 2018, 360 (6395), pii: eaap8757. doi: 10.1126/science.aap875

Feitosa, M. F., Kraja, A. T., Chasman, D. I., ... , Metspalu, A., *et al.* Novel genetic associations for blood pressure identified via gene-alcohol interaction in up to 570K individuals across multiple ancestries. – *PLoS ONE*, 2018, 13 (6): e0198166. doi.org/10.1371/journal.pone.0198166

Ni, G., Gratten, J., Wray, N. R., ... , Schizophrenia Working Group of the Psychiatric Genomics Consortium (*incl.* Metspalu, A.). Age at first birth in women is genetically associated with increased risk of schizophrenia. – *Scientific Reports*, 2018, 8 (10168). doi: 10.1038/s41598-018-28160-z

Zekavat, S. M., Ruotsalainen, S., Handsaker, R. E., ... , Metspalu, A., *et al.* Deep coverage whole genome sequences and plasma lipoprotein(a) in individuals of European and African ancestries. – *Nature Communications*, 2018, 9 (2606). doi: 10.1038/s41467-018-04668-w

Tasa, T., Krebs, K., Kals, M., ... , Metspalu, A., Vilo, J., Milani, L. Genetic variation in the Estonian population: pharmacogenomics study of adverse drug effects using electronic health records. – *European Journal of Human Genetics*, 2018. doi: 10.1038/s41431-018-0300-6

Virtanen, V. B., Salo, P. P., Cao, J., ... , Metspalu, A., *et al.* Noncoding RET variants explain the strong association with Hirschsprung disease in patients without rare coding sequence variant. – *European Journal of Medical Genetics*, 2018. doi.org/10.1016/j.ejmg.2018.07.019

## **Leo MÕTUS**

Motus, L., Taveter, K., Dieves, V. Modelling complex system-of-systems for creating situation awareness: Late breaking report. – Proc. 2018 IEEE Conference on Cognitive and Computational Aspects of Situation Management, 2018, 168–170.

\* \* \*

Kaugerand, J., Ehala, J., Motus, L., Preden, J.-S. Time-selective data fusion for in-network processing in ad hoc wireless sensor networks. – International Journal of Distributed Sensor Networks, 2018, 14 (11), 1-17. doi: 10.1177/1550147718811302

## **Lauri MÄLKSOO**

Mälksoo, L. Case law in Russian approaches to international law. – Roberts, A., *et al.* (eds). Comparative International Law. Oxford University Press, Oxford, 2018, 337–352.

Mälksoo, L. The controversy over human rights, UN covenants, and the dissolution of the Soviet Union. – Japanese Yearbook of International Law 2018. Tokyo, 2018, 61, 260–283.

\* \* \*

Mälksoo, L. Book review: [Onuma, Y. International Law in a Transcivilizational World. Cambridge University Press, 2017]. – Leiden Journal of International Law, 2018, 31 (2), 439–445.

## **Ülo NIINEMETS**

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Jätksuutlikud teadlaskarjääri kontseptsioonid ja mudelid Eesti kontekstis. Lõpparuande lühikokkuvõte. – Tallinn-Tartu : Eesti Teaduste Akadeemia-Eesti Teadusagentuur, 2018. – 9 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Jätksuutlikud teadlaskarjääri kontseptsioonid ja mudelid Eesti kontekstis. Lõpparuanne. – Tallinn-Tartu : Eesti Teaduste Akadeemia-Eesti Teadusagentuur, 2018. – 115 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Sustainable research career models: applications for Estonia. Executive summary. – Tallinn-Tartu : Estonian Academy of Sciences-Estonian Research Council. – 9 p.

\* \* \*

Bjorkman, A. D., Myers-Smith, I. H., Elmendorf, S. C., ... , Niinemets, Ü., *et al.* Plant functional trait change across a warming tundra biome. – *Nature*, 2018, 562, 57–62. doi: 10.1038/s41586-018-0563-7

Bruelheide, H., Dengler, J., Purschke, O., ... , Niinemets, Ü., *et al.* Global trait–environment relationships of plant communities. – *Nature Ecology & Evolution*, 2018, 2, 1906–1917. doi: 10.1038/s41559-018-0699-8

Busch, V., Klaus, V. H., Penone, C., ... , Niinemets, Ü., *et al.* Nutrient stoichiometry and land use rather than species richness determine plant functional diversity. – *Ecology and Evolution*, 2018, 8, 601–616. doi: 10.1002/ece3.3609

Chatterjee, P., Kanagendran, A., Samaddar, S., Pazouki, L., Sa, T.-M., Niinemets, Ü. Inoculation of *Brevibacterium linens* RS16 in *Oryza sativa* genotypes enhanced salinity resistance: impacts on photosynthetic traits and foliar volatile emissions. – *Science of the Total Environment*, 2018, 645, 721–732. doi: 10.1016/j.scitotenv.2018.07.187

Chatterjee, P., Samaddar, S., Niinemets, Ü., Sa, T.-M. *Brevibacterium linens* RS16 confers salt tolerance to *Oryza sativa* genotypes by regulating antioxidant defense and H<sup>+</sup> ATPase activity. – *Microbiological Research*, 2018, 215, 89–101. doi: 10.1016/j.micres.2018.06.007

de Souza, V. F., Niinemets, Ü., Rasulov, B., *et al.* Alternative carbon sources for isoprene emission. – *Trends in Plant Science*, 2018, 23, 1081–1101.

Fernández-Martínez, M., Llusà, J., Filella, I., Niinemets, Ü., Arneth, A., Wright, I. J., Loreto, F., Peñuelas, J. Nutrient-rich plants emit a less intense blend of volatile isoprenoids. – *The New Phytologist*, 2018, 220, 773–784. doi: 10.1111/nph.14889

Jiang, Y., Lei, Y., Yang, Y., Korpelainen, H., Niinemets, Ü., Li, C. Divergent assemblage patterns and driving forces for bacterial and fungal communities along a glacier forefield chronosequence. – *Soil Biology & Biochemistry*, 2018, 118, 207–216. doi: 10.1016/j.soilbio.2017.12.019

Jiang, Y., Veromann-Jürgenson, L.-L., Ye, J., Niinemets, Ü. Oak gall wasp infections of *Quercus robur* leaves lead to profound modifications in foliage photosynthetic and volatile emission characteristics. – *Plant, Cell & Environment*, 2018, 41, 160–175. doi: 10.1111/pce.13050

Niinemets, Ü. When leaves go over the thermal edge. – *Ibid.*, 1247–1250. doi: 10.1111/pce.13184

Li, S., Tosens, T., Harley, P. C., Jiang, Y., Kanagendran, A., Grosberg, M., Jaamets, K., Niinemets, Ü. Glandular trichomes as a barrier against atmospheric oxidative stress:

- relationships with ozone uptake, leaf damage, and emission of LOX products across a diverse set of species. – *Ibid.*, 1263–1277. doi: 10.1111/pce.13128
- Niinemets, Ü., Bravo, L. A., Copolovici, L. Changes in photosynthetic rate and stress volatile emissions through desiccation-rehydration cycles in desiccation-tolerant epiphytic filmy ferns (Hymenophyllaceae). – *Ibid.*, 1605–1617. doi: 10.1111/pce.13201
- Kanagendran, A., Pazouki, L., Bichele, R., Külheim, C., Niinemets, Ü. Temporal regulation of terpene synthase gene expression in *Eucalyptus globulus* leaves upon ozone and wounding stresses: relationships with stomatal ozone uptake and emission response. – *Environmental and Experimental Botany*, 2018, 155, 552–565. doi: 10.1016/j.envexpbot.2018.08.002
- Kanagendran, A., Pazouki, L., Li, S., Liu, B., Kännaste, A., Niinemets, Ü. Ozone-triggered surface uptake and stress volatile emissions in *Nicotiana tabacum* ‘Wisconsin’. – *Journal of Experimental Botany*, 2018, 69, 681–697. doi: 10.1093/jxb/erx431
- Kanagendran, A., Pazouki, L., Niinemets, Ü. Differential regulation of volatile emission from *Eucalyptus globulus* leaves upon single and combined ozone and wounding treatments through recovery and relationships with ozone uptake. – *Environmental and Experimental Botany*, 2018, 145, 21–38. doi: 10.1016/j.envexpbot.2017.10.012
- Kännaste, A., Laanisto, L., Pazouki, L., Copolovici, L., Suhorutšenko, M., Azeem, M., Toom, L., Borg-Karlson, A.-K., Niinemets, Ü. Diterpenoid fingerprints in pine foliage across an environmental and chemotypic matrix: isoabienol content is a key trait differentiating chemotypes. – *Phytochemistry*, 2018, 147, 80–88. doi: 10.1016/j.phytochem.2017.12.007
- Kuusk, V., Niinemets, Ü., Valladares, F. A major trade-off between structural and photosynthetic investments operative across plant and needle ages in three Mediterranean pines. – *Tree Physiology*, 2018, 38, 543–557. doi: 10.1093/treephys/tpx139
- Niinemets, Ü. Storage of defense metabolites in the leaves of Myrtaceae: news of the eggs in different baskets. – *Ibid.*, 1445–1450. doi: 10.1093/treephys/tpy115
- Liu, B., Kaurilind, E., Jiang, Y., Niinemets, Ü. Methyl salicylate differently affects benzenoid and terpenoid volatile emissions in *Betula pendula*. – *Ibid.*, 1513–1525. doi: 10.1093/treephys/tpy050
- Kuusk, V., Niinemets, Ü., Valladares, F. Structural controls on photosynthetic capacity through juvenile-to-adult transition and needle ageing in Mediterranean pines. – *Functional Ecology*, 2018, 32, 1479–1491. doi: 10.1111/1365-2435.13087

Moreno-Martínez, Á., Camps-Valls, G., Kattge, J., ... , Niinemets, Ü., *et al.* A methodology to derive global maps of leaf traits using remote sensing and climate data. – *Remote Sensing of Environment*, 2018, 218, 69–88. doi: 10.1016/j.rse.2018.09.006

Niinemets, Ü. What are plant-released biogenic volatiles and how they participate in landscape-to global-level processes? – Perera, A. H., Peterson, U., Martínez Pastur, G. J., Iverson, L. R. (eds). *Ecosystem services from forest landscapes. Broadscale considerations.* Springer, Berlin, 2018, 29–56. doi: 10.1007/978-3-319-74515-2\_3

Portillo-Estrada, M., Niinemets, Ü. Massive release of volatile organic compounds due to leaf midrib wounding in *Populus tremula*. – *Plant Ecology*, 2018, 219, 1021–1028. doi.org/10.1007/s11258-018-0854-y

Pärn, J., Verhoeven, J. T. A., Butterbach-Bahl, K., ... , Niinemets, Ü., *et al.* Nitrogen-rich organic soils under warm well-drained conditions are global nitrous oxide emission hotspots. – *Nature Communications*, 2018, 9, 1135. doi: 10.1038/s41467-018-03540-1

Rasulov, B., Talts, E., Bichele, I., Niinemets, Ü. Evidence that isoprene emission is not limited by cytosolic metabolites. Exogenous malate does not invert the reverse sensitivity of isoprene emission to high [CO<sub>2</sub>]. – *Plant Physiology*, 2018, 176, 1573–1586. doi: 10.1104/pp.17.01463

Zhang, T., Niinemets, Ü., Sheffield, J., Lichstein, J. Shifts in tree functional composition amplify the response of forest biomass to climate. – *Nature*, 2018, 556, 99–102. doi: 10.1038/nature26152

\* \* \*

Niinemets, Ü. Mis maksab teadus ja teadlase arvamus ja kas me saame selle kohe rahaks vahetada? – Engelbrecht, J. (koost ja toim). *Teadusmõte Eestis (IX). Teadus ja ühiskond.* Eesti Teaduste Akadeemia, Tallinn, 2018, 69–77.

Niinemets, Ü. Taimede fotosünteesi muutlikkuse biokeemilised, füsioloogilised ja struktuursed kontrollmehhanismid: Geo- ja bioteaduste aastapreemia. – *Eesti Vabariigi preemiad 2018. Teadus.* F. J. Wiedemanni keelea hind. Sport. Kultuur. Eesti Teaduste Akadeemia, Tallinn, 2018, 136–149.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Randma-Liiv, T. Teadlaskarjääri mudel kui riigi konkurentsivõime tugi. – *Riigikogu Toimetised*, 2018, 37, 191–203.

## **Ergo NÕMMISTE**

Kuusik, I., Berholts, M., Kruusma, J., Kisand, V., Tõnisoo, A., Lust, E., Nõmmiste, E. Valence electronic structure of [EMIM][BF<sub>4</sub>] ionic liquid: photoemission and DFT+D study. – *Rsc Advances*, 2018, 8, 30298–30304. doi: 10.1039/c8ra05865b

Visnapuu, M., Rosenberg, M., Truska, E., Nõmmiste, E., *et al.* UVA-induced antimicrobial activity of ZnO/Ag nanocomposite covered surfaces. – *Colloids and Surfaces B: Biointerfaces*, 2018, 169, 222–232. doi: 10.1016/j.colsurfb.2018.05.009

## **Eve OJA**

Munoz, F., Oja, E., Pineiro, C. The Bartle-Dunford-Schwartz and the Dinculeanu-Singer theorems revisited. – *Journal of Mathematical Analysis and Applications*, 2018, 460 (2), 682–702. dx.doi.org/10.1016/j.jmaa.2017.12.006

## **Arvo OTS**

Neshumayev, D., Rummel, L., Konist, A., Ots, A., Parve, T. Power plant fuel consumption rate during load cycling. – *Applied Energy*, 2018, 224, 124–135.

## **Karl PAJUSALU**

Ernštreits, V., Pajusalu, K. (eds). *Studies on Livonian III*. – Tartu : Tartu Ülikooli Kirjastus, 2018. – 278 p. – (Journal of Estonian and Finno-Ugric Linguistics (JEFUL); 9 (2)).

Kallasmaa, M., Saar, E., Päll, P., ... , Pajusalu, K., Sutrop, U. *Eesti kohanimeraamat*. – Tallinn : Eesti Keele Instituut, 2018. – (www.eki.ee/dict/knr/)

Pajusalu, K., Hennoste, T., Niit, E., Päll, P., Viikberg, J. *Eesti murded ja kohanimed*. 3. – Kohendatud ja täiendatud trükk. – Tartu : Eesti Teaduste Akadeemia Emakeele Selts, 2018. – 334 lk. – (www.emakeeleselts.ee/digiraamatud/Eesti-murded-ja-kohanimed\_kolmas-trykk\_2018.pdf)

Winkler, E., Pajusalu, K. *Salis-Livisch II. Grammatik und Wörterverzeichnis. Mit einem Anhang zu den salis-livischen Sprichwörtern*. – Wiesbaden : Harrassowitz Verlag, 2018. – 403 p. – (Veröffentlichungen der Societas Uralo-Altaica; 89).

\* \* \*

Habicht, K., Metslang, H., Pajusalu, K., Pajusalu, R. Estonian *aga* and *ikka*: from temporal lexis to interaction.– *Oralité, Information, Typologie. Orality, Information, Typology. Hommage á M.M. Jocelyne Fernandez-Vest. L'Harmattan, Paris, 2018, 317–342.*

Norvik, M., Metslang, H., Pajusalu, K. The supine inessive constructions in Salaca Livonian. – *Journal of Estonian and Finno-Ugric Linguistics, 2018, 9 (2), 215–240.*

Pajusalu, K. Emakeele Seltsi üliõpilasliikmed eestlust sõnastamas 1920-ndate alguses. – *Keel ja Kirjandus, 2018, 1–2, 56–66.*

Pajusalu, K., Uiboed, K., Pomozi, P., Németh, E., Fehér, T. Towards a phonological typology of Uralic languages. – *Journal of Estonian and Finno-Ugric Linguistics, 2018, 9 (1), 187–207.*

Tuisk, T., Pajusalu, K. A journey of discovery through the Livonian world: the scholarly work of Tiit-Rein Viitso. – *Journal of Estonian and Finno-Ugric Linguistics, 2018, 9 (2), 13–34.*

## **Martti RAIDAL**

Ellis, J., Fowlie, A., Marzola, L., Raidal, M. Statistical analyses of higgs- and Z-portal dark matter models. – *Physical Review D, 2018, 97 (11), 115014. doi: 10.1103/PhysRevD.97.115014*

Ellis, J., Hektor, A., Hütsi, G., Kannike, K., Marzola, L., Raidal, M., Vaskonen, V. Search for dark matter effects on gravitational signals from neutron star mergers. – *Physics Letters B, 2018, 781, 607–610. doi: 10.1016/j.physletb.2018.04.048*

Ellis, J., Hütsi, G., Kannike, K., Marzola, L., Raidal, M., Vaskonen, V. Dark matter effects on neutron star properties. – *Physical Review D, 2018, 97 (12), 123007. doi: 10.1103/PhysRevD.97.123007*

Fraser, S., Hektor, A., Hütsi, G., ... , Raidal, M., Vaskonen, V., Veermäe, H. The EDGES 21 cm anomaly and properties of dark matter. – *Physics Letters B, 2018, 785, 159–164. doi: 10.1016/j.physletb.2018.08.035*

Heikinheimo, M., Raidal, M., Spethmann, C., Veermae, H. Collisionless shocks in self-interacting dark matter. – *Comments Plasma Phys. Contr. Fusion, 2018, 60, 014011. doi: 10.1088/1361-6587/aa7f48*

Hektor, A., Hütsi, G., Raidal, M. Constraints on primordial black hole dark matter from Galactic center X-ray observations. – *Astronomy & Astrophysics, 2018, A139. doi: 10.1051/0004-6361/201833483*

Hektor, A., Hütsi, G., Marzola, L., Raidal, M., Vaskonen, V., Veermäe, H. Constraining primordial black holes with the EDGES 21-cm absorption signal. – *Physical Review D, 2018, 98 (2), 023503. doi: 10.1103/PhysRevD.98.023503*



Hohmann, M., Pfeifer, C., Raidal, M., Veermäe, H. Wormholes in conformal gravity. – *Journal of Cosmology and Astroparticle Physics*, 2018, 1810 (10), 003. doi: 10.1088/1475-7516/2018/10/003

Marzola, L., Marzo, C., Fraser, S., Raidal, M., Spethmann, C. Towards a viable scalar interpretation of  $R_D^*$ . – *Physical Review D*, 2018, 98 (3), 035016. doi: 10.1103/PhysRevD.98.035016

Marzola, L., Raidal, M., Urban, F. R. Oscillating spin-2 dark matter. – *Physical Review D*, 2018, 97 (2), 024010. doi: 10.1103/PhysRevD.97.024010

Raidal, M., Solodukhin, S., Vaskonen, V., Veerme, H. Light primordial exotic compact objects as all dark matter. – *Phys Rev D*, 2018, 97 (12), 123520. doi: 10.1103/PhysRevD.97.123520

### **Tiina RANDMA-LIIV**

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Jätkusuutlikud teadlaskarjääri kontseptsioonid ja mudelid Eesti kontekstis. Lõpparuande lühikokkuvõte. – Tallinn-Tartu : Eesti Teaduste Akadeemia-Eesti Teadusagentuur, 2018. – 9 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Jätkusuutlikud teadlaskarjääri kontseptsioonid ja mudelid Eesti kontekstis. Lõpparuanne. – Tallinn-Tartu : Eesti Teaduste Akadeemia-Eesti Teadusagentuur, 2018. – 115 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Sustainable research career models: applications for Estonia. Executive summary. – Tallinn-Tartu : Estonian Academy of Sciences-Estonian Research Council. – 9 p.

\* \* \*

Pesti, C., Randma-Liiv, T. Towards a managerial public service bargain: the Estonian civil service reform. – *NISPAcee Journal of Public Administration and Policy*, 2018, 11 (1), 135–154.

Randma-Liiv, T., Kickert, W. The Impact of fiscal crisis on public administration in Europe. – Ongaro, E., Van Thiel, S. (eds). *The Palgrave Handbook of Public Administration and Management in Europe*. Palgrave Macmillan, 2018, 899–918.

Randma-Liiv, T., Vintar, M., Proeller, I., Profiroiu, M. EGPA and the European administrative space: strategic partnership with NISPAcee and the trans-European dialogue (TED). – Ongaro, E. (ed). *Public Administration in Europe. The Contribution of EGPA*. Palgrave Macmillan, 2018, 71–81.

\* \* \*

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Randma-Liiv, T. Teadlaskarjääri mudel kui riigi konkurentsivõime tugi. – Riigikogu Toimetised, 2018, 37, 191–203.

\* \* \*

Kickert, W., Randma-Liiv, T. No direct influence of EU on domestic consolidation and reform: two fiscal ‘hardliners’, Netherlands and Estonia. – Public Management Review, 2018. doi: 10.1080/14719037.2018.1502949

Randma-Liiv, T., Drechsler, W. Three decades, four phases: public administration development in Central and Eastern Europe, 1989–2017. – International Journal of Public Sector Management, 2018, 3 (7). <https://doi.org/10.1108/IJPSM-06-2017-0175>

Raudla, R., Douglas, J., Randma-Liiv, T., Savi, R. The impact of greater centralization on the relevance of performance information in European governments during the fiscal crisis. – Administration & Society, 2018. doi: 10.1177/0095399716680055

## **Anto RAUKAS**

Haud, J., Raukas, A., Salo, V., Varju, P. Eesti okupatsioonikahjud ja inimkaotused. – Tallinn : Valge Raamat, 2018. – 128 lk.

\* \* \*

Järvelill, J. I., Koch, R., Raukas, A., Vaasma, T. Hazardous radioactivity levels and heavy mineral concentrations in beach sediments of Lake Peipsi, northeastern Estonia. – Geologos, 2018, 24, 1, 1–12.

Järvet, A., Raukas, A. Teenekas mullauuriija Rein Kask. 16. XI 1926 – 17. XI 2017. – Eesti Geograafia Seltsi aastaraamat. Eesti Geograafia Selts, Tallinn, 2018, 43, 344–352.

Raukas, A. Some dangerous Earth`s fields on the example of Estonia. – Proceedings of International Earth`s Fields Conference. Institute of Environmental Health and Safety, Tallinn, 2018, 12–18.

Raukas, A., Valdma, M. Ei saa me hakkama ilma põlevkivita! – Elektriala, 2018, 8, 8–9.

\* \* \*

Raukas, A. Elektrit kohvipaksust! – Elektriala, 2018, 8, 5.

Raukas, A. Teadusest ja ebateadusest. – Eesti Teaduste Akadeemia aastaraamat XXIII (50), 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 53–55.

## Anu REALO

Allik, J., Realo, A. Cross-cultural perspectives on personality and individual differences. – Zeigler-Hill, V., Shackelford, T. K. (eds). *The SAGE Handbook of Personality and Individual Differences*. Sage, Thousand Oaks, CA, 303–320.

Beilmann, M., Kõöts-Ausmees, L., Realo, A. The relationship between social capital and individualism–collectivism in Europe. – *Social Indicators Research*, 2018, 137 (2), 641–664. doi: 11205-017-1614-4

Hřebíčková, M., Mõttus, R., Graf, S., Jelinek, M., Realo, A. How accurate are national stereotypes? A test of different methodological approaches. – *European Journal of Personality*, 2018, 32, 87–99. doi.org/10.1002/per.2146

Mill, A., Kõöts-Ausmees, L., Allik, J., Realo, A. The role of co-occurring emotions and personality traits in anger expression. – *Frontiers in Psychology*, 2018, 9 (123), 1–13. doi: 10.3389/fpsyg.2018.00123

Sorokowska, A., Groyecka, A., Karwowski, M., ... Realo, A., *et al.* Global study of social odor awareness. – *Chemical Senses*, 2018, 43, 503–513. doi: 10.1093/chemse/bjy038

\* \* \*

Allik, J., Hřebíčková, M., Realo, A. Unusual configurations of personality traits indicate multiple patterns of their coalescence. – *Frontiers in Psychology*, 2018, 9, 187. doi: 10.3389/fpsyg.2018.00187

Allik, J., Mõttus, R., Realo, A., Rozgonjuk, D. What makes young Russians happy and satisfied with their lives? – *Sage Open*, 2018, 8 (3), 1–11. doi: 10.1177/2158244018803136

McCrae, R. R., Mõttus, R. R., Hřebíčková, M., Realo, A., Allik, J. Source method biases as implicit personality theory at the domain and facet levels. – *Journal of Personality*, 2018, doi: 10111/jopy.12435

Mill, A., Kõöts-Ausmees, L., Allik, J., Realo, A. The role of co-occurring emotions and personality traits in anger expression. – *Frontiers in Psychology*, 2018, 9 (123). doi: 10.3389/fpsyg.2018.00123

Realo, A., van Middendorp, H., Kõöts-Ausmees, L., Allik, J., Evers, A. W. M. The role of personality traits in reporting the development of adverse drug reactions: A Prospective cohort

study of the Estonian general population. – *BMJ Open*, 2018, 8, e022428. doi: 10.1136/bmjopen-2018-022428

### **Jaan ROSS**

Lippus, P., Ross, J. Temporaalne variatiivsus eestikeelsete laulude esitamisel kui kompromiss kõne ja muusika vahel. – *Mäetagused*, 2017, 68, 123–144.

Ross, J. Doktoriväitekiri emotsioonidest eestikeelses kõnes. – *Keel ja Kirjandus*, 2018, 61 (3), 244–248.

Ross, J. Viini salvestised ja Berliini salvestised. – *Keel ja Kirjandus*, 2018, 61 (12), 1004–1006.

### **Hando RUNNEL**

Runnel, H. Ükskord oli üks mees. – Tallinn : Hea Lugu, 2018. – 207 lk.

Runnel, H. Siniste kiilide lend. – Tartu : Ilmamaa, 2018. – 227 lk.

Runnel, H. Jaanipäevaks kõrgeks kasvab rohi. – Tartu : Ilmamaa, 2018. – 95 lk.

Runnel, H. (koost), Visnapuu, H. Millal sünnib inimene. – Tartu : Ilmamaa, 2018. – 461 lk. – (Eesti mõttelugu; 139).

\* \* \*

Runnel, H. [Järeldõna]. – Gailit, A. Pühajärv. Ilmamaa, Tartu, 2018.

Runnel, H. Kaheksa laulu : [Luuletsükkel]. – Looming, 2018, 11, 1522–1525.

### **Enn SAAR**

Einasto, M., Deshev, B., Lietzen, H., ... , Saar, E., Einasto, J. Infalling groups and galaxy transformations in the cluster A2142. – *Astronomy & Astrophysics*, 2018, 610, A82. doi.org/10.1051/0004-6361/201731600

Einasto, M., Gramann, M., Park, C., ... , Saar, E. Supercluster A2142 and collapse in action: infalling and merging groups and galaxy transformations. – *Astronomy & Astrophysics*, 2018, 620, A149. doi.org/10.1051/0004-6361/201833711

Libeskind, N. I., van de Weygaert, R., Cautun, M., ... , Saar, E., *et al.* Tracing the cosmic web. – Monthly Notices of the Royal Astronomical Society, 2018, 473, 1195–1217. doi.org/10.1093/mnras/stx1976

### **Peeter SAARI**

Saari, P. Reexamination of group velocities of structured light pulses. – Physical Review A, 2018, 97, 063824-11.

Valdmann, A., Piksarv, P., Valtna-Lukner, H., Saari, P. White-light hyperbolic Airy beams. – Journal of Optics, 2018, 20, 095605-9.

\* \* \*

Saari, P. Eestlusest ja teaduseliidist. – Engelbrecht, J. (koost ja toim). Teadusmõte Eestis (IX). Teadus ja ühiskond. Eesti Teaduste Akadeemia, Tallinn, 2018, 106–112.

Saari, P. Kuidas sündis Physicum. – Tartu Ülikooli ajaloo küsimusi, 2018, XLVI, 8–21.

\* \* \*

Saari, P. Signaalitöötuse alused I : [interaktiivsete konsept-töölehtede ja *on-line* testidega]. <https://moodle.ut.ee/course/view.php?id=1133>

### **Mart SAARMA**

Hakonen, E., Chandra, V., Fogarty, C. I., ... , Saarma, K., *et al.* MANF protects human pancreatic beta cells against stress-induced cell death. – Diabetologia, 2018, 61, 10, 2202–2214. <https://doi.org/10.1007/s00125-018-4687-y>

Huotarinen, A., Penttinen, A. M., Bäck, S., ... , Saarma, M., *et al.* Combination of CDNF and deep brain stimulation decreases neurological deficits in late-stage model Parkinson's disease. – Neuroscience, 2018, 374, 250–263. doi: 10.1016/j.neuroscience.2018.01.052

Ivanova, L., Tammiku-Taul, J., García-Sosa, A. T., Sidorova, Y., Saarma, M., Karelson, M. Molecular dynamics simulations of the interactions between glial cell line-derived neurotrophic factor family receptor GFR $\alpha$ 1 and small-molecule ligands. – ACS Omega, 2018, 3 (9), 11407–11414. doi: 10.1021/acsomega.8b01524

Ivanova, L., Tammiku-Taul, J., Sidorova, Y., Saarma, M., Karelson, M. Small-molecule ligands as potential GDNF family receptor agonists. – ACS Omega, 2018, 3 (1), 1022–1030.

Penttinen, A.-M., Parkkinen, I., Blom, S., ... , Saarma, M., Airavaara, M. Implementation of deep neural networks to count dopamine neurons in substantia nigra. – Eur. J. Neurosci., 2018, 48, 6, 2354–2361.

Renko, J.-M., Bäck, S., Voutilainen, M. H., Piepponen, P. T., Reenilä, I., Saarma, M., Tuominen, R. K. Mesencephalic astrocyte-derived neurotrophic factor (MANF) elevates stimulus-evoked release of dopamine in freely-moving rats. – Molecular Neurobiology, 2018, 55, 8, 6755–6768. doi.org/10.1007/s12035-018-0872-8

Suleymanova, I., Balassa, T., Tripathi, S., Molnar, C., Saarma, M., Sidorova, Y., Horvath, P. A deep convolutional neural network approach for astrocyte detection. – Scientific Reports, 2018, 27, 8 (1), 12878. doi: 10.1038/s41598-018-31284-x

\* \* \*

Penttinen, A.-M., Parkkinen, I., Voutilainen, M. H., ... , Saarma, M., Airavaara, M. Pre-alpha-pro-GDNF and pre-beta-pro-GDNF isoforms are neuroprotective in the 6-hydroxydopamine rat model of Parkinson's disease. – Frontiers in Neurology, 2018. doi: 10.3389/fneur.2018.00457

\* \* \*

Saarma, M., Voutilainen, M. H., Airavaara, M., Yu, L. Y., Lindahl, M. C-terminaaliset CDNF- ja MANF-fragmentit, niitä käsittävät farmaseuttiset koostumukset ja niiden käytöt. Filing data 21.06.2018. Filing number: FI 20185304

### **Arved-Ervin SAPAR**

Sapar, A. A perpetual mass-generating Planckian universe. – Proceedings of the Estonian Academy of Sciences, 2018, 1–12. doi.org/10.3176/proc.2019.1.01

### **Tarmo SOOMERE**

Soomere, T. (vast toim). Eesti Vabariigi preemiad. Teadus. F. J. Wiedemanni keeleauhind. Sport. Kultuur. – Tallinn : Eesti Teaduste Akadeemia, 2018. – 308 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Jätksuutlikud teadlaskarjääri kontseptsioonid ja mudelid Eesti kontekstis. Lõpparuande lühikokkuvõte. – Tallinn-Tartu : Eesti Teaduste Akadeemia-Eesti Teadusagentuur, 2018. – 9 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Jätksuutlikud teadlaskarjääri kontseptsioonid ja mudelid Eesti kontekstis. Lõpparuanne. – Tallinn-Tartu : Eesti Teaduste Akadeemia-Eesti Teadusagentuur, 2018. – 115 lk.

Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Roosalu, T., Randma-Liiv, T. Sustainable research career models: applications for Estonia. Executive summary. – Tallinn-Tartu : Estonian Academy of Sciences-Estonian Research Council. – 9 p.

Soomere, T., Pilt, E. Eesti Teaduste Akadeemia sõnas ja pildis. – Tallinn : Eesti Teaduste Akadeemia, 2018. – 72 lk.

\* \* \*

Delpeche-Ellmann, N., Kudryavtseva, N., Soomere, T. The role of nearshore slope on cross-shore surface transport during a coastal upwelling event in Gulf of Finland, Baltic Sea. – Estuarine, Coastal and Shelf Science, 2018, 209, 123–135. doi: 10.1016/j.ecss.2018.03.018

Delpeche-Ellmann, N., Soomere, T. Possible presence of shear instabilities at steep slopes during an upwelling event in the Gulf of Finland, Baltic Sea. – Journal of Coastal Research, 2018, Special Issue 85, 481–485. doi: 10.2112/SI85-097.1

Kudryavtseva, N., Pindsoo, K., Soomere, T. Non-stationary modeling of trends in extreme water level changes along the Baltic Sea Coast. – *Ibid.*, 586–590. doi: 10.2112/SI85-118.1

Kelpšaitė-Rimkienė, L., Soomere, T., Bagdanavičiūtė, I., Nesteckitė, L., Žalys, M. Measurements of long waves in Port of Klaipėda, Lithuania. – *Ibid.*, 761–765, doi: 10.2112/SI85-153.1

Giudici, A., Kalda, J., Soomere, T. Joint impact of currents and winds on the patch formation near the coasts of the Gulf of Finland. – *Ibid.*, 1156-1160, doi: 10.2112/SI85-232.1

Kudryavtseva, N., Pindsoo, K., Soomere, T. Non-stationary modeling of extremes in water levels along the Baltic Sea coast. – 2nd Baltic Earth Conference The Baltic Sea in Transition. Helsingør, Denmark, 11 to 15 June 2018. Conference Proceedings. International Baltic Earth Secretariat Publications, Geesthacht, Germany, 2018, 92–93.

Eelsalu, M., Pindsoo, K., Soomere, T., Julge, K. Interannual coastal processes in Estonia, Peraküla beach monitored by laser scanning technology. – *Ibid.*, 115–116.

Giudici, A., Kalda, J., Soomere, T. Modeling patchiness on the sea surface caused by the interplay of winds and currents in the Gulf of Finland. – *Ibid.*, 119–120.

Männikus, R., Soomere, T., Kudryavtseva, N. On the water level measurements in the Gulf of Riga during 1961–2016. – *Ibid.*, 130–131.

Pelinovsky, E. N., Talipova, T. G., Soomere, T., Kurkina, O. E., Kurkin, A. A., Tyugin, D. Yu. Modelling of internal waves in the Baltic Sea. – *Fundamentalnaya i Prikladnaya Gidrofizika (Fundamental and Applied Hydrophysics)*, 2018, 11 (2), 8–20. doi: 10.7868/S2073667318020016

Soomere, T., Eelsalu, M., Pindsoo, K. Variations in parameters of extreme value distributions of water level along the eastern Baltic Sea coast. – *Estuarine, Coastal and Shelf Science*, 2018, 215, 59–68. doi: 10.1016/j.ecss.2018.10.010

Viikmäe, B., Soomere, T. The persistence of spatial patterns of beaching of current-driven pollution in a changing wind climate: a case study for the Gulf of Finland. – *Boreal Environment Research*, 2018, 23, 299–314.

\* \* \*

Soomere, T. Kuus kukesammu. – *Eesti Teaduste Akadeemia aastaraamat XXIII (50)*, 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 65–68.

Soomere, T. Lummavalt mitmekesised rannad. – *Eesti Loodus*, 2018, 11, 32–33.

Soomere, T. Mereteaduste komisjon. – *Eesti Teaduste Akadeemia aastaraamat XXIII(50)*, 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 37–39; Ingl: Committee on Marine Sciences. – *Estonian Academy of Sciences, Year Book XXIII(50)*, 2017. Estonian Acad. Sci., Tallinn, 2018, 42–45.

Soomere, T. Mihkel Veiderma 27. detsember 1929 – 25. oktoober 2018. – *Eesti Loodus*, 2018, 12, 69.

Soomere, T. Teaduspreemiate komisjoni esimehe tervitus, laureaate tutvustus. – *Eesti Vabariigi preemiad 2017. Teadus. F. J. Wiedemanni keeleauhind. Sport. Kultuur. Eesti Teaduste Akadeemia*, Tallinn, 2018, 12–20.

Soomere, T. Teaduste akadeemiate pikk tee heaks nõustajaks. – *Akadeemia*, 2018, 9, 1559–1581; Engelbrecht, J. (koost ja toim). *Teadusmõte Eestis (IX). Teadus ja ühiskond*. Eesti Teaduste Akadeemia, Tallinn, 2018, 78–90.

Soomere, T. Väikerahva teaduse lugu kui kinnitus, et seisame suurmeeste õlgadel. – Engelbrecht, J., Tammiksaar, E. (koost ja toim). *Eesti teaduse 100 aastat. Post Factum*, Tallinn, 2018, 11–13.



Soomere, T., Niinemets, Ü., Niglas, K., Pilt, E., Randma-Liiv, T. Teadlaskarjääri mudel kui riigi konkurentsivõime tugi. – Riigikogu Toimetised, 2018, 37, 191–203.

## **Martin ZOBEL**

Davison, J., Moora, M., Öpik, M., ... , Zobel, M. Microbial island biogeography: isolation shapes the life history characteristics but not diversity of root-symbiotic fungal communities. – The ISME Journal, 2018, 12 (9), 2211–2224.

de Leon, D. G., Cantero, J. J., Moora, M., Opik, M., Davison, J., Vasar, M., Jairus, T., Zobel, M. Soybean cultivation supports a diverse arbuscular mycorrhizal fungal community in central Argentina. – Applied Soil Ecology, 2018, 124, 289–297.

García de León, D., Davison, J., Moora, M., ... , Zobel, M. Anthropogenic disturbance equalizes diversity levels in arbuscular mycorrhizal fungal communities. – Global Change Biology, 2018, 24, 2649–2659.

García de León, D., Neuenkamp, L., Moora, M., ... , Zobel, M. Arbuscular mycorrhizal fungal communities in tropical rain forest are resilient to slash-and-burn agriculture. – Journal of Tropical Ecology, 2018, 34, 186–199.

Gerz, M., Bueno, C. G., Ozinga, W. A., Zobel, M., Moora, M. Niche differentiation and expansion of plant species are associated with mycorrhizal symbiosis. – Journal of Ecology, 2018, 106, 254–264.

Menzel, A., Hempel, S., Davison, J., ... , Zobel, M., Kühn, I. Widely distributed native and alien plant species differ in arbuscular mycorrhizal associations and related functional trait interactions. – Ecography, 2018, 41, 1583–1593.

Neuenkamp, L., Moora, M., Öpik, M., ... , Zobel, M. The role of plant mycorrhizal type and status in modulating the relationship between plant and arbuscular mycorrhizal fungal communities. – New Phytologist, 2018, 220, 1236–1247.

Sepp, S. K., Jairus, T., Vasar, M., Zobel, M., Opik, M. Effects of land use on arbuscular mycorrhizal fungal communities in Estonia. – Mycorrhiza, 2018, 28, 259–268.

Zobel, M. Eltonian niche width determines range expansion success in ectomycorrhizal conifers. – New Phytologist, 2018, 220, 947–949.

Zobel, M., Davison, J., Edwards, M. E., Brochmann, C., Coissac, E., Taberlet, P., Willerslev, E., Moora, M. Ancient environmental DNA reveals shifts in dominant mutualisms during the late Quaternary. – Nature Communications, 2018, 9, 139.

## **Tiit TAMMARU**

Hess, D. B., Tammaru, T., van Ham, M. (eds). *Housing Estates in Europe: Poverty, Ethnic Segregation and Policy Challenges*. – Springer, 2018. – 424 p.

\* \* \*

Hess, D. B., Tammaru, T., van Ham, M. *Lessons learned from a Pan-European study of large housing estates: Origin, trajectories of change and future prospects*. *Housing estates in Europe: Poverty, ethnic segregation and policy challenges*. – *Housing Estates in Europe*, 2018, 3–31.

\* \* \*

Kukk, K., van Ham, M., Tammaru, T. *EthniCity of leisure: a domains approach to ethnic integration during free time activities*. – *TESG – Journal of Economic and Social Geography*, 2018. doi.org/10.1111/tesg.12307

## **Tõnu-Andres TANNBERG**

Läll, A., Maripuu, M., Mägi, S., Pajur, A., Stern, K., Tammela, M.-L., Tannberg, T., Tark, T., Tomson, A., Toomla, R., Valge, J. *Valitsused ja riigimehed*. – Tallinn : TEA Kirjastus, 2018. – 319 lk.

Saueauk, M., Rohtmets-Aasa, H., Kaju, K. (toim), Tannberg, T. (vast toim). *Riigikatselai : 1918–2018*. – Tartu : Rahvusarhiiv, 2018. – 285 lk.

Uuet, L., Tamman, H. (toim), Tannberg, T. (vast toim). *Haridusministeeriumi sajand: 1918–2018*. – Tartu : Rahvusarhiiv, 2018. – 526 lk.

\* \* \*

Raudsepp, A., Tannberg, T. *The Impact of World War I on the rise of national states: challenges of history textbook writing*. – *International Journal of Research on History Didacts, History Education and History Culture*. Yearbook of the International Society of History Didacts, 2018, 159–178.

Tannberg, T. *After Stalin: The Kremlin’s “New Nationalities Policy” and Estonia in 1953*. – Fleishman, L., Weiner, A. (eds). *War, Revolution, and Governance: The Baltic Countries in the Twentieth Century*. Academic Studies Press, Stanford University, 2018, 207–239. (Studies in Russian and Slavic Literatures, Cultures, and History).

Tannberg, T. *Esimene maailmasõda ja omariikluse süünd*. – *Horisont*, 2018, 1, 30–36.

Tannberg, T. “Kogerman on meile praegu äärmiselt vajalik põlevkivitööstuse taastamisel...”. – Horisont, 2018, 4, 38–39.

Tannberg, T. The Baltic question in the Kremlin in the last months of 1944: How to fight against armed resistance movement? - Saueauk, M., Hiio, T. (eds). *Sovetisation and Violence: The Case of Estonia*. Tartu : University of Tartu Press, 2018, 38–58. (Proceedings of the Estonian Institute of Historical Memory; 1).

Saueauk, M., Tannberg, T. How was the decision to carry out a joint deportation operation in the Soviet Baltic republics in the spring of 1949 adopted in the Kremlin? – *Ibid.*, 305–314. (Proceedings of the Estonian Institute of Historical Memory; 1).

Tannberg, T. “Õieti oli ju “Elu tsitadellis” see viiekopikaline minu hukkamisloos...”. – Looming, 2018, 4, 536-545.

## **Enn TÕUGU**

Tõugu, E. Arvutid, küberruum ja tehismõistus. Noppeid arvutite imepärasest eduloost. – Tallinn : Tallinna Ülikooli kirjastus, 2018. – 195 lk.

\* \* \*

Tõugu, E. Segadus informaatika põhimõistetega. – Eesti Teaduste Akadeemia aastaraamat XXIII (50), 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 81–84.

Tõugu, E. Kuidas ma olen teadust teinud ja seda rakendanud : [ettekanne üldkogu aastakoosolekul 19. aprillil 2017]. – *Ibid.*, 109–116.

Tõugu, E. Teadmised sisalduvad ainult andmetes. – Akadeemia, 2018, 30 (11), 1956–1965.

## **Raimund-Johannes UBAR**

Ubar, R., Jasnetski, A., Tsertov, A., Oyeniran, A. S. *Software-Based Self-Test with Decision Diagrams for Microprocessors*. – Lambert Academic Publishing, 2018. – 171 p.

\* \* \*

Azad, S. P., Oyeniran, A. S., Ubar, R. Replication-based deterministic testing of 2-dimensional arrays with highly interrelated cells. – 21st IEEE International Symposium on Design and Diagnostics of Electronic Circuits and Systems. April 25–27, 2018, Budapest, Hungary. IEEE, 2018, 1–6.

Jürimägi, L., Ubar, R. Fault collapsing in digital circuits with shared structurally synthesized BDDs. – The 16th Biennial Baltic Electronics Conference - BEC. October 8–10, 2018. IEEE, 2018, 1–6.

Jürimägi, L., Ubar, R., Jenihhin, M., Raik, J., Kostin, S., Devadze, S. Hierarchical timing-critical paths analysis in sequential circuits. – 28th International Conference on Power and Timing Optimization and Simulation - PATMOS. Platja D'Aro, Spain, July 2–4, 2018. IEEE, 2018, 1–6.

Kõusaar, J., Kostin, S., Ubar, R., Devadze, S., Raik, J. Exact parallel critical path fault tracing to speed-up fault simulation in sequential circuits. – International Journal of Microelectronics and Computer Science, 2018, 9 (1), 9–18.

Kõusaar, J., Ubar, R., Kostin, S., Devadze, S., Raik, J. Parallel critical path tracing based fault simulation in sequential circuits. – 25th International Conference Mixed Design of Integrated Circuits and Systems - MIXDES. Gdynia, Poland, June 21–23, 2018. IEEE, 2018, 305–310.

Oyeniran, A. S., Azad, S. P., Ubar, R. Combined pseudo-exhaustive and deterministic testing of array multipliers. – IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), May 24–26, 2018, Cluj-Napoca, Romania. IEEE, 2018, 1–6.

Oyeniran, A. S., Azad, S. P., Ubar, R. Parallel pseudo-exhaustive testing of array multipliers with data-controlled segmentation. – International Symposium on Circuits and Systems (ISCAS), May 27–30, 2018, Florence, Italy. IEEE, 2018, 1–5.

Ubar, R., Jürimägi, L., Jenihhin, M., Raik, J., Olugbenga, N.-L., Viies, V. Timing analysis of digital circuits with structurally synthesized BDDs. – The 7th Mediterranean Conference on Embedded Computing (MECO), June 10–14, 2018, Budva, Montenegro. IEEE, 2018, 1–6.

Ubar, R., Kostin, S., Jenihhin, M., Raik, J., Jürimägi, L. Fast identification of true critical paths in sequential circuits. – Journal of Microelectronics Reliability. Microelectronics Reliability, 2018, 81, 252–261.

Ubar, R., Oyeniran, A. S., Medaiyese, O. Minimization of the high-level fault model for microprocessor control parts. – The 16th Biennial Baltic Electronics Conference – BEC. October 8–10, 2018. IEEE, 2018, 1–6.

\* \* \*

Ubar, R. Teaduspõhisus eesriide taga. – Engelbrecht, J. (koost ja toim). Teadusmõte Eestis (IX). Teadus ja ühiskond. Eesti Teaduste Akadeemia, Tallinn, 2018, 9–27.

Ubar, R. Tõe haprustest teaduse ja ühiskonna dialoogis. – Eesti Teaduste Akadeemia aastaraamat XXIII (50), 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 51–53.

## **Raivo UIBO**

Laidmäe, I., Erglis, K., Cebers, A., Janmey, P. A., Uibo, R. Salmon fibrinogen and chitosan scaffold for tissue engineering: in vitro and in vivo evaluation. – *Journal of Materials Science: Materials in Medicine*, 2018, 29 (12), 182.

Parkkola, A., Härkönen, T., Ryhänen, S. J., Uibo, R., Ilonen, J., Knip, M., the Finnish Pediatric Diabetes Register. Transglutaminase antibodies and celiac disease in children with type 1 diabetes and in their family members. – *Pediatric Diabetes*, 2018, 19 (2), 305–313.

Šunina, M., Kaleviste, E., Uibo, R., Kisand, K. Unstimulated adult human B cells include an IL-10+ population with suppressive properties and an activated phenotype. – *Cytometry A*, 2018, 93 (11), 1150–1156.

Tagoma, A., Alnek, K., Kirss, A., Uibo, R., Haller-Kikkatalo, K. MicroRNA profiling of second trimester maternal plasma shows upregulation of miR-195-5p in patients with gestational diabetes. – *Gene*, 2018, 672, 137–142.

\* \* \*

Uibo, R. Nobeli füsioloogia ja meditsiini auhinna laureaadid 2018. aastal. – *Eesti Arst*, 2018, 97, 459–460.

## **Jaan UNDUSK**

Undusk, J., Lukas, ., Schwidtal, M. (eds). Politische Dimensionen der deutschbaltischen literarischen Kultur. – Berlin : LIT Verlag, 2018. – 438 lk. – (Schriften der Baltischen Historischen Kommission; Bd. 22).

\* \* \*

Undusk, J. Ajaloolane kui kohaneja ja kindlaksjääja. Vello Helgi mälestuseks. – Engelbrecht, J. (koost ja toim). Teadusmõte Eestis (IX). Teadus ja ühiskond. Eesti Teaduste Akadeemia, Tallinn, 2018, 159–175.

Undusk, J. Armulaud kui usupuhastuse keskne teoloogiline probleem. Martin Lutheri võitlus maagide ja märgitundjatega. – *Looming*, 2018, 5, 665–691.

Undusk, J. Estonian images of Italy. Immagini estoni dell'Italia. – Konrad Mägi (1878–1925). La galleria nazionale – Eesti Kunstimuuseum, Rooma - Tallinn, 2018, 6–7, 14–15.

Undusk, J. Vabamüürlus ja kultuurilugu. – *Tuna*, 2018, 3, 146–149.

Undusk, J., Lukas, L., Schwidtal, M. Recht und Gesetz, Herrschaft und politische Partizipation. Zur Einführung. – Undusk, J., Lukas, L., Schwidtal, M. (eds). Politische Dimensionen der deutschbaltischen literarischen Kultur. LIT Verlag, Berlin, 2018, 7–13. (Schriften der Baltischen Historischen Kommission, Bd. 22).

Undusk, J. Die schwere Aneignung der Gesetzlichkeit. Über die rechtliche Wende im Baltikum Anfang des 19. Jahrhunderts. – *Ibid.*, 75–122.

\* \* \*

Undusk, J., Undusk, R. Usutlus vendade Unduskitega. Kūsis Aare Pilv. – Keel ja Kirjandus, 2018, 11, 868–874.

## **Mart USTAV**

Sankovski, E., Abroi, A., Ustav, M. Jr., Ustav, M. Nuclear myosin 1 associates with papillomavirus E2 regulatory protein and influences viral replication. – *Virology*, 2018, 514, 142–155. doi: 10.1016/j.virol.2017.11.013

Õunap, K., Kurg, K., Võsa, L., Maiväli, Ü., Teras, M., Planken, A., Ustav, M., Kurg, R. Antibody response against cancer-testis antigens MAGEA4 and MAGEA10 in patients with melanoma. – *Oncology Letters*, 2018, 16 (1), 211–218. doi: 10.3892/ol.2018.8684

\* \* \*

Henno, L., Tombak, E. M., Geimanen, J., Orav, M., Ustav, E., Ustav, M. Analysis of human papillomavirus genome replication using two- and three-dimensional agarose gel-electrophoresis. – *Current Protocols in Microbiology*, 2018, 45 (1), 10.1002/cpmc.28.

Lázaro-Frías, A., Gómez-Medina, S., Sánchez-Sampedro, L., Ljungberg, K., Ustav, M., *et al.* Distinct immunogenicity and efficacy of poxvirus-based vaccine candidates against Ebola virus expressing GP and VP40 proteins. – *Journal of Virology*, 2018, 92 (11), pii, e00363-18. doi: 10.1128/JVI.00363-18

Podgórska, M., Ołdak, M., Marthaler, A., ... , Ustav, M., *et al.* Chronic inflammatory microenvironment in epidermodysplasia verruciformis skin lesions: role of the synergism between HPV8 E2 and C/EBPβ to induce pro-inflammatory S100A8/A9 proteins. – *Frontiers in Microbiology*, 2018, 9, 392. doi: 10.3389/fmicb.2018.00392

Öhlund, P., García-Arriaza, J., Zusinaite, E., Szurgot, I., Männik, A., Kraus, A., Ustav, M., *et al.* DNA-launched RNA replicon vaccines induce potent anti-Ebolavirus immune responses that can be further improved by a recombinant MVA boost. – *Scientific Reports*, 2018, 8 (1), 12459. doi: 10.1038/s41598-018-31003-6

## **Tarmo UUSTALU**

Fischer, B., Uustalu, T. (eds). Theoretical Aspects of Computing – ICTAC 2018 15th International Colloquium, Stellenbosch, South Africa, October 16–19, 2018, Proceedings. – Springer, 2018. – 533 p. – (Lect. Notes in Comput. Sci.; 11187).

Uustalu, T. (ed). 21st International Conference on Types for Proofs and Programs : TYPES 2015, May 18-21, 2015, Tallinn, Estonia. – Saarbrücken/Wadern : Dagstuhl Publishing, 2018. – 250 p. – (Leibniz International Proceedings in Informatics; 69).

\* \* \*

Katsumata, S.-Y., Sato, T., Uustalu, T. Codensity lifting of monads and its dual. – Logical Methods in Computer Science, 2018, 14 (4), 4924. doi: 10.23638/lmcs-14(4:6)2018

Maarand, H., Uustalu, T. Certified Foata normalization for generalized traces. – Dutle, A., Muñoz, C., Narkawicz, A. (eds). NASA Formal Methods: 10th International Symposium, NFM 2018 Newport News, VA, USA, April 17–19, 2018, Proceedings. Springer, 2018, 299–314. (Lect. Notes in Comput. Sci.; 10811). doi: 10.1007/978-3-319-77935-5\_21

Pinto, L., Uustalu, T. A proof theoretic-study of bi-intuitionistic propositional sequent calculus. – Journal of Logic and Computation, 2018, 28 (1), 165–202. doi: 10.1093/logcom/exx044

Uustalu, T., Veltri, N., Zeilberger, N. The sequent calculus of skew-monoidal categories. – Staton, S. (ed). Proc. of 34th Conf. on Mathematical Foundations of Programming Semantics, MFPS XXXIV, Halifax, NS, June 2018, 345–370. (Electron. Notes in Theor. Comput. Sci.; 341). doi: 10.1016/j.entcs.2018.11.017

## **Gennadi VAINIKKO**

Rehman, S., Pedas, A., Vainikko, G. Fast solvers of weakly singular integral equations of the second kind. – Mathematical Modelling and Applications, 2018, 23 (4), 639–664.

Vainikko, G. Positive solution of Lighthill-type equations. – Zeitschrift für Analysis und Anwendungen, 2018, 37 (4), 475–494.

\* \* \*

Vainikko, G. Tagasivaade elutööle: [ettekanne üldkogu aastakoosolekul 19. aprillil 2017]. – Eesti Teaduste Akadeemia aastaraamat XXIII (50), 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 116–123.

## **Urmas VARBLANE**

Rõigas, K., Mohnen, P., Varblane, U. Which firms use universities as cooperation partners? – A comparative view in Europe. – *International Journal of Technology Management*, 2018, 76 (1-2), 32–57.

\* \* \*

Ukrainski, K., Tammeaid, I., Timpmann, K., Kanep, H., Varblane, U. Eesti arengumudeli muutmiseks tuleb muuta stiimuleid. – *Riigikogu Toimetised*, 2018, 37, 55–74.

Valge, J., Varblane, U. Eestikeelne kõrgharidus. – Raag, R., Valge, J. (toim). *Sõida tasa üle silla. Raamat eesti keelest ja eesti meelest*. EKSA, Tallinn-Tartu, 2018, 272–274.

Varblane, U. Majandusteadus, populism ja Brexit. – Engelbrecht, J. (koost ja toim). *Teadusmõte Eestis (IX). Teadus ja Ühiskond*. Eesti Teaduste Akadeemia, Tallinn, 2018, 125–135.

Varblane, U., Varblane, U. The economic crisis and North Estonia: a case study of rapid recovery. – Bristow, G., Healy, A. (eds). *Economic Crisis and the Resilience of Regions. A European Study*. Edward Elgar Publishing, Cheltenham, UK, 2018, 61–79. (New Horizons in Regional Science Series).

\* \* \*

Lilles, A., Rõigas, K., Varblane, U. Comparative view of the EU regions by their potential of university-industry cooperation. – *Journal of Knowledge Economy*, 2018. doi: 10.1007/s13132-018-0533-1

## **Eero VASAR**

Altpere, A., Raud, S., Sütt, S., Reimets, R., Visnapuu, T., Toots, M., Vasar, E. Mild stress induces brain region-specific alterations of selective ER stress markers' mRNA expression in Wfs1-deficient mice. – *Behavioural Brain Research*, 2018, 352, 94–98. doi: 10.1016/j.bbr.2017.09.039

Eskla, K. L., Porosk, R., Reimets, R., Visnapuu, T., Vasar, E., Hundahl, C. A., Luuk, H. Hypothermia augments stress response in mammalian cells. – *Free Radical Biology and Medicine*, 2018, 121, 157–168. doi: 10.1016/j.freeradbiomed.2018.04.571

Heinla, I., Åhlgren, J., Vasar, E., Voikar, V. Behavioural characterization of C57BL/6N and BALB/c female mice in social home cage - Effect of mixed housing in complex environment. – *Physiology & Behavior*, 2018, 188, 32–41. doi: 10.1016/j.physbeh.2018.01.024



Singh, K., Lilleväli, K., Gilbert, S. F., ... , Vasar, E., Philips, M. A. The combined impact of IgLON family proteins Lsamp and Neurotrimin on developing neurons and behavioral profiles in mouse. – The Brain Research Bulletin, 2018, 140, 5–18. doi: 10.1016/j.brainresbull.2018.03.013

\* \* \*

Vasar, E. Arstiteaduse ja tervishoiu strateegia alaline komisjon. – Eesti Teaduste Akadeemia aastaraamat XXIII(50), 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 40–41; Ingl: Standing Committee on Medical Science and Health Strategy. – Estonian Academy of Sciences, Year Book XXIII(50), 2017. Estonian Acad. Sci., Tallinn, 2018, 45–46.

\* \* \*

Karis, K., Eskla, K. L., Kaare, M., ... , Vasar, E., Philips, M. A. Altered expression profile of IgLON family of neural cell adhesion molecules in the dorsolateral prefrontal cortex of schizophrenic patients. – Frontiers in Molecular Neuroscience, 2018 Jan 29, 11, 8. doi: 10.3389/fnmol.2018.00008

Leppik, L., Kriisa, K., Koido, K., Koch, K., Kajalaid, K., Haring, L., Vasar, E., Zilmer, M. Profiling of amino acids and their derivatives biogenic amines before and after antipsychotic treatment in first-episode psychosis. – Frontiers in Psychiatry, 2018 Apr 24, 9, 155. doi: 10.3389/fpsy.2018.00155

Narvik, J., Vanaveski, T., Innos, J., Philips, M. A., Ottas, A., Haring, L., Zilmer, M., Vasar, E. Metabolic profile associated with distinct behavioral coping strategies of 129Sv and B16 mice in repeated motility test. – Scientific Reports, 2018 Feb, 21, 8 (1), 3405. doi: 10.1038/s41598-018-21752-9

Singh, K., Loreth, D., Pöttker, B., ... , Vasar, E., Schäfer, M. K. E. Neuronal growth and behavioral alterations in mice deficient for the psychiatric disease-associated *Negr1* gene. – Frontiers in Molecular Neuroscience, 2018 Feb 9, 11, 30. doi: 10.3389/fnmol.2018.00030

Toots, M., Reimets, R., Plaas, M., Vasar, E. Muscarinic agonist ameliorates insulin secretion in *Wfs1*-deficient mice. – Canadian Journal of Diabetes, 2018 Jun 23, pii, S1499-2671(18)30056-X. doi: 10.1016/j.jcjd.2018.06.007

Toots, M., Seppa, K., Jagomäe, T., ... , Vasar, E. Preventive treatment with liraglutide protects against development of glucose intolerance in a rat model of Wolfram syndrome. – Scientific Reports, 2018 Jul 5, 8 (1), 10183. doi: 10.1038/s41598-018-28314-z

Traks, T., Keermann, M., Karelson, M., ... , Vasar, E., Kõks, S., Kingo, K. Polymorphisms in melanocortin system and *MYG1* genes are associated with vitiligo. – Journal of the European Academy of Dermatology and Venereology, 2018 Jul 27. doi: 10.1111/jdv.15195

Vanaveski, T., Narvik, J., Innos, J., ... , Vasar, E. Repeated administration of D-amphetamine induces distinct alterations in behavior and metabolite levels in 129Sv and B16 mouse strains. – *Frontiers in Neuroscience*, 2018 Jun 12, 12, 399. doi: 10.3389/fnins.2018.00399

### **Richard VILLEMS**

Pathak, A. K., Kadian, A., Kushniarevich, A., ... , Villems, R. The genetic ancestry of modern Indus Valley populations from Northwest India. – *American Journal of Human Genetics*, 2018, 103, 918–929.

Tamang, R., Chaubey, G., Nandan, A., ... Villems, R., Thangaraj, K. Reconstructing the demographic history of the Himalayan and adjoining populations. – *Human Genetics*, 2018, 137, 129–139.

\* \* \*

Hudjashov, G., Endicott, P., Post, H., ... Villems, R., *et al.* Investigating the origins of eastern Polynesians using genome-wide data from the Leeward Society Isles. – *Scientific Reports*, 2018, 8 (1), 1823. doi: 10.1038/s41598-018-20026-8

Tambets, K., Yunusbayev, B., Hudjashov, G., ... , Villems, R., *et al.* Genes reveal traces of common recent demographic history for most of the uralic speaking populations. – *Genome Biology*, 2018, 19 (1), 139. doi: 10.1186/s13059-018-1522-1

### **Jaak VILO**

Modhukur, V., Iljasenko, T., Metsalu, T., Loka, K., Laisk-Podar, T., Vilo, J. MethSurv: a web tool to perform multivariable survival analysis using DNA methylation data. – *Epigenomics*, 2018, 10 (3), 277–288. doi: 10.2217/epi-2017-0118

Sadam, H., Pihlak, A., Kivil, A., ... , Vilo, J., *et al.* Prostaglandin D2 receptor DP1 antibodies predict vaccine-induced and spontaneous narcolepsy type 1: large-scale study of antibody profiling. – *EBioMedicine*, 2018, 29, 47–59. doi: 10.1016/j.ebiom.2018.01.043

\* \* \*

Vilo, J. Tööstuse andmed tuleb „silotornidest“ vabaks lasta. – *Eesti Teaduste Akadeemia aastaraamat XXIII (50)*, 2017. Eesti Teaduste Akadeemia, Tallinn, 2018, 60–62.

\* \* \*

Kolberg, L., Kuzmin, I., Adler, P., Vilo, J., Peterson, H. funcExplorer: a tool for fast data-driven functional characterisation of high-throughput expression data. – *BMC Genomics*, 2018, 19 (1), 817. doi: 10.1186/s12864-018-5176-x

Moeller, S., Saul, N., Cohen, A. A., ... , Vilo, J., *et al.* Healthspan pathway maps in *C. elegans* and humans highlight transcription, proliferation/biosynthesis and lipids. – *bioRxiv*, 2018. doi.org/10.1101/355131

Mooses, K., Oja, M., Reisberg, S., Vilo, J., Kull, M. Validating Fitbit Zip for monitoring physical activity of children in school: a cross-sectional study. – *BMC Public Health*, 2018. doi: 10.1186/s12889-018-5752-7

Reisberg, S., Krebs, K., Lepamets, M., ... , Vilo, J., Milani, L. Translating genotype data of 44,000 biobank participants into clinical pharmacogenetic recommendations: challenges and solutions. – *Genetics in Medicine*, 2018. doi: 10.1038/s41436-018-0337-5

Tasa, T., Kalamees, R., Vilo, J., Lutsar, I., Metsvaht, T. External evaluation of population pharmacokinetic models for vancomycin in neonates. – *bioRxiv*, 2018. doi.org/10.1101/458125

## **Haldur ÕIM**

Veismann, A., Klavan, J., Õim, H. Teoreetiline keeleteadus ja kvantitatiivsed meetodid. – *Keel ja Kirjandus*, 2018, 8–9, 609–621.

## **Andres ÕPIK**

Ayankojo, A. G., Reut, J., Boroznjak, R., Õpik, A., Syritski, V. Molecularly imprinted poly(meta-phenylenediamine) based QCM sensor for detecting Amoxicillin. – *Sensors and Actuators B: Chemical*, 2018, 258, 766–774. doi: 10.1016/j.snb.2017.11.194

Ayankojo, A., Reut, J., Õpik, A., Furchner, A., Syritski, V. Hybrid molecularly imprinted polymer for amoxicillin detection. – *Biosensors and Bioelectronics*, 2018, 118, 102–107. doi: 10.1016/j.bios.2018.07.042

Ayankojo, A. G., Reut, J., Õpik, A., Tretjakov, A., Syritski, V. Enhancing binding properties of imprinted polymers for the detection of small molecules. – *Proceedings of the Estonian Academy of Sciences*, 2018, 67 (2), 138–146. doi: 10.3176/proc.2018.2.04

Kidakova, A., Reut, J., Rappich, J., Õpik, A., Syritski, V. Preparation of a surface-grafted protein-selective polymer film by combined use of controlled/living radical photopolymerization

and microcontact imprinting. – *Reactive and Functional Polymers*, 2018, 125, 47–56.  
doi: [10.1016/j.reactfunctpolym.2018.02.004](https://doi.org/10.1016/j.reactfunctpolym.2018.02.004)