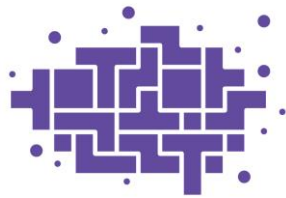


## Projekta Izp-2020/1-0149 rezultāti

### Bioloģiski motivēti aktīvo sistēmu modeļi elektromagnētiskā laukā

*Oriģināli zinātniskie raksti, kas publicēti zinātniskos žurnālos, rakstu krājumos vai konferenču rakstu krājumos, kuri ir indeksēti datu bāzēs Web of Science Core Collection, SCOPUS vai ERIH PLUS*

1. Shinde, B.; Livanovics, R.; Cebers, A. Dynamics of rotlet's ensemble. - JMMM, 2023, <https://doi.org/10.1016/j.jmmm.2023.171314>
2. Shinde, B.; Cebers, A. Merging of ensembles of rotlets. - Magnetohydrodynamics, 2023, <https://doi.org/10.22364/mhd.59.3-4.2>
3. Belovs, M.; Cebers, A. Flexible filaments in applied fields. - JMMM, 2023, <https://doi.org/10.1016/j.jmmm.2023.171417>
4. Nelson, L.; Kitenbergs, G. Tuning properties of phase-separated magnetic fluid with temperature. - JMMM, 2024, <https://doi.org/10.1016/j.jmmm.2024.171880>
5. Spūlis, V.; Gorovojs, D.; Pudāns, J.; Kitenbergs, G.; Cīmurs, J. Macroscopic emulation of microscopic magnetic particle system. - JMMM, 2024, <https://doi.org/10.1016/j.jmmm.2023.171647>
6. Bente, K.; Bakenecker, A. C.; Gladiss, A.; Bachmann, F.; Cebers, A.; Buzug, TH. M.; Faivre, D. Selective actuation and tomographic imaging of swarming magnetite nanoparticles - Applied Nano Materials, 2021, <https://pubs.acs.org/doi/abs/10.1021/acsnm.1c00768>
7. Junot, G.; Cebers, A.; Tierno, P. Collective hydrodynamic transport of magnetic rollers. - Soft Matter, 2021, <https://doi.org/10.1039/D1SM00653C>
8. Kiet, A.; Tran, E.; Andy T. Bennett, C.A.; Pogoda, K.; Cheng, X.; Cebers, A.; Janmey, P. A.; Galie, P. A. Dynamic Tuning of Viscoelastic Hydrogels with Carbonyl Iron Microparticles Reveals the Rapid Response of Cells to Three Dimensional Substrate Mechanics. - ACS Applied Materials & Interfaces, 2021, <https://doi.org/10.1021/acsnm.1c00768>
9. Zaben, A.; Kitenbergs, G.; Cebers, A. Instability caused swimming of ferromagnetic filament in pulsed field. - Scientific Reports, 2021, <https://doi.org/10.1038/s41598-021-02541-3>
10. Belovs, M.; Cebers, A. Equilibrium shapes and stability of magnetic filaments. - Phys. Rev. E., 2022, <https://doi.org/10.1103/PhysRevE.105.014601>



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LIETIŠĶO PĒTĪJUMU  
PROJEKTI

11. Langins, A.; Stikuts, A.P.; Cebers, A. A three-dimensional boundary method algorithm for simulations of magnetic fluid droplet dynamics. - Phys. Fluids 2022, <https://doi.org/10.1063/5.0092532>
12. Stikuts, A. P.; Perzynski, R.; Cebers, A. Small deformation theory for a magnetic droplet in a rotating field/ - Phys. Fluids, 2022, <https://doi.org/10.1063/5.0091453>

*Aizstāvēts promocijas darbs projekta tematikā*

1. Stikuts, A.P. Magnetic fluid droplets in rotating fields: theory, experiments and simulations. 2022, <https://dspace.lu.lv/dspace/handle/7/61715>
2. Langins, A. Three-dimensional simulations of magnetic fluid free interface dynamics using boundary integral equations, PhD, 2022, MMML lab - Thesis / Darbi (lu.lv)
3. Zaben, A. Dynamics of spontaneously magnetized micro-filaments under an external magnetic field: experimental investigation, PhD, 2022, MMML lab - Thesis / Darbi (lu.lv)
4. Pukina-Slava, L. Interface Smearing and Gravity Effects on Magnetic Micro-convectin, PhD, 2023, MMML lab - Thesis / Darbi (lu.lv)