FLPP
FUNDAMENTĀLO UN LIETIŠĶO PĒTĪJUMU PROJEKTI

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. Nelsone, 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/acsanm.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/acsami.0c21868

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

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)