

Seznam excelentních výsledků

Období: **2022**

Typ: M1 – základ

Součást: Matematicko-fyzikální fakulta UK

- 1) BARTO, Libor – BULÍN, Jakub – OPRŠAL, Jakub...et al. Algebraic Approach to Promise Constraint Satisfaction. *Journal of the ACM*. 2021, **68** (4), 1-66. ISSN 0004-5411. DOI 10.1145/3457606.
- 2) BATHORY, Michal – BULÍČEK, Miroslav – MÁLEK, Josef. Large data existence theory for three-dimensional unsteady flows of rate-type viscoelastic fluids with stress diffusion. *Advances in Nonlinear Analysis*. 2021, **10** (1), 501-521. ISSN 2191-9496. DOI 10.1515/anona-2020-0144.
- 3) BREIT, Dominic – CIANCHI, Andrea – DIENING, Lars...et al. Pointwise Calderon-Zygmund gradient estimates for the p-Laplace system. *Journal des Mathematiques Pures et Appliquees*. 2018, **2018** (114), 146-190. ISSN 0021-7824. DOI 10.1016/j.matpur.2017.07.011.
- 4) BROM, Cyril – LUKAVSKÝ, Jiří – GREGER, David...et al. Mandatory Home Education During the COVID-19 Lockdown in the Czech Republic: A Rapid Survey of 1st-9th Graders' Parents. *Frontiers in Education [online]*. 2020, **5** (9 July 2020), 103. ISSN 2504-284X. DOI 10.3389/educ.2020.00103.
- 5) CEJNAR, Pavel – STRÁNSKÝ, Pavel – MACEK, Michal...et al. Excited-state quantum phase transitions. *Journal of Physics A: Mathematical and Theoretical*. 2021, **54** (13), 133001. ISSN 1751-8113. DOI 10.1088/1751-8121/abdf8.
- 6) ČAPEK, Jan – MATHIS, Kristián – CLAUSEN, Bjorn...et al. Dependence of twinned volume fraction on loading mode and Schmid factor in randomly textured magnesium. *Acta Materialia*. 2017, **130** (květen), 319-328. ISSN 1359-6454. DOI 10.1016/j.actamat.2017.03.017.
- 7) ČÍŽEK, Jakub. Characterization of lattice defects in metallic materials by positron annihilation spectroscopy: A review. *Journal of Materials Science and Technology*. 2018, **34** (4), 577-598. ISSN 1005-0302. DOI 10.1016/j.jmst.2017.11.050.
- 8) DE MARNEFFE, Marie-Catherine – MANNING, Christopher – NIVRE, Joakim...et al. Universal Dependencies. *Computational Linguistics [online]*. 2021, **47** (2), 255-308. ISSN 1530-9312. DOI 10.1162/coli_a_00402.
- 9) DVOŘÁK, Zdeněk – POSTLE, Luke. Correspondence coloring and its application to list-coloring planar graphs without cycles of lengths 4 to 8. *Journal of Combinatorial Theory. Series B*. 2018, **129** (March), 38-54. ISSN 0095-8956. DOI 10.1016/j.jctb.2017.09.001.
- 10) FALISZEWSKI, Piotr – GONEN, Rica – KOUTECKÝ, Martin...et al. Opinion Diffusion and Campaigning on Society Graphs. In: LANG, Jérôme. *Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence*. [S.l.]: International Joint

Conferences on Artificial Intelligence, 2018, s. 219-225. ISBN 978-0-9992411-2-7. DOI 10.24963/ijcai.2018/30.

- 11) FROLOV, Valeri P. – KRTOUŠ, Pavel – KUBIZŇÁK, David...et al. Massive Vector Fields in Rotating Black-Hole Spacetimes: Separability and Quasinormal Modes. *Physical Review Letters*. 2018, **120** (23), 231103. ISSN 0031-9007. DOI 10.1103/PhysRevLett.120.231103.
- 12) GREGOR, Petr – MUETZE, Torsten – NUMMENPALO, Jerri. A short proof of the middle levels theorem. *Discrete Analysis [online]*. 2018, **2018** (21. května), 1-12. ISSN 2397-3129. DOI 10.19086/da.3659.
- 13) HOLUBEC, Viktor – RYABOV, Artem. Cycling Tames Power Fluctuations near Optimum Efficiency. *Physical Review Letters*. 2018, **121** (12), 120601. ISSN 0031-9007. DOI 10.1103/PhysRevLett.121.120601.
- 14) CHEUNG, Clifford – KAMPF, Karol – NOVOTNÝ, Jiří...et al. A periodic table of effective field theories. *Journal of High Energy Physics [online]*. 2017, **2017** (2), 020. ISSN 1029-8479. DOI 10.1007/JHEP02(2017)020.
- 15) KALA, Vítězslav – YATSYNA, Pavlo. Lifting problem for universal quadratic forms. *Advances in Mathematics*. 2021, **2021** (377), 107497. ISSN 0001-8708. DOI 10.1016/j.aim.2020.107497.
- 16) KHADKA, Utsab – HOLUBEC, Viktor – YANG, Haw...et al. Active particles bound by information flows. *Nature Communications [online]*. 2018, **9** (September), 3864. ISSN 2041-1723. DOI 10.1038/s41467-018-06445-1.
- 17) KOZÁK, Martin – SCHOENENBERGER, Norbert – HOMMELHOFF, Peter. Ponderomotive Generation and Detection of Attosecond Free-Electron Pulse Trains. *Physical Review Letters*. 2018, **120** (10), 103203-6. ISSN 0031-9007. DOI 10.1103/PhysRevLett.120.103203.
- 18) KOZÁK, Martin - ECKSTEIN, Timo – SCHONENBERGER, Norbert...et al. Inelastic ponderomotive scattering of electrons at a high-intensity optical travelling wave in vacuum. *Nature Physics*. 2018, **14** (2), 121-125. ISSN 1745-2473. DOI 10.1038/NPHYS4282.
- 19) KRIVÁK, Radoslav – HOKSZA, David. P2Rank: machine learning based tool for rapid and accurate prediction of ligand binding sites from protein structure. *Journal of Cheminformatics [online]*. 2018, **10** (1), 39. ISSN 1758-2946. DOI 10.1186/s13321-018-0285-8.
- 20) LYKHACH, Yaroslava – BRUIX, Albert – FABRIS, Stefano...et al. Oxide-based nanomaterials for fuel cell catalysis: the interplay between supported single Pt atoms and particles. *Catalysis: Science and Technology*. 2017, **7** (19), 4315-4345. ISSN 2044-4753. DOI 10.1039/c7cy00710h.
- 21) PACÁKOVÁ, Barbara – KUBÍČKOVÁ, Simona – SALAS, Gorka...et al. The internal structure of magnetic nanoparticles determines the magnetic response. *Nanoscale [online]*. 2017, **9** (16), 5129-5140. ISSN 2040-3364. DOI 10.1039/c6nr07262c.

- 22) PAPAPOPOULOS, Alessandro Vittorio – VERSLUIS, Laurens – BAUER, André...et al. Methodological Principles for Reproducible Performance Evaluation in Cloud Computing. *IEEE Transactions on Software Engineering*. 2021, **47** (8), 1528-1543. ISSN 0098-5589. DOI 10.1109/TSE.2019.2927908.
- 23) PIŠOFT, Petr – ŠÁCHA, Petr – POLVANI, Lorenzo M.et al. Stratospheric contraction caused by increasing greenhouse gases. *Environmental Research Letters*. 2021, **16** (6), 064038. ISSN 1748-9326. DOI 10.1088/1748-9326/abfe2b.
- 24) PIZZI, A. – DI DOMENICA, A. – GALLOVIČ, František...et al. Fault Segmentation as Constraint to the Occurrence of the Main Shocks of the 2016 Central Italy Seismic Sequence. *Tectonics*. 2017, **36** (11), 2370-2387. ISSN 0278-7407. DOI 10.1002/2017TC004652.
- 25) POST, Thierry – KOPA, Miloš. Portfolio Choice Based on Third-Degree Stochastic Dominance. *Management Science*. 2017, **63** (10), 3381-3392. ISSN 0025-1909. DOI 10.1287/mnsc.2016.2506.
- 26) RINDLER, Filip – SCHWARZACHER, Sebastian – VELÁZQUEZ, Juan J.L. Two-Speed Solutions to Non-convex Rate-Independent Systems. *Archive for Rational Mechanics and Analysis*. 2021, **239** (1), 1667-1731. ISSN 0003-9527. DOI 10.1007/s00205-020-01599-z.
- 27) SOMBERG, Petr – FISCHMANN, Matthias – JUHL, Andreas. Conformal symmetry breaking differential operators on differential forms. *Memoirs of the American Mathematical Society*. 2020, **2020** (1304), 1-122. ISSN 0065-9266. DOI 10.1090/memo/1304.