

List of publications

Journal articles

- J. Malík, A. Kolcun: [Determination of the initial stress tensor from deformation of underground opening in excavation proces.](#) Applications of Mathematics 67(3), 2022, pages 297-318.
- S. Sysala, R. Blaheta, A. Kolcun, J. Ščučka, K. Souček, P. Pan: [Computation of composite strength by limit analysis.](#) Key Engineering Materials 810, 2019, pages 137-142.
- R. Blaheta, R. Kohut, A. Kolcun, K. Souček, L. Staš, L. Vavro: [Digital image based numerical micromechanics of geocomposites with application to chemical grouting.](#) International Journal of Rock Mechanics and Mining Science, Vol. 77, 2015, pages 77-88.
- R. Blaheta, P. Byczanski, M. Čermák, R. Hrtus, R. Kohut, A. Kolcun, J. Malík, S. Sysala: [Analysis of ASPO pillar stability experiment: Continuous TM model development and calibration.](#) Journal of Rock Mechanics and Geotechnical Engineering 5, 2013, pages 124-135.

Selected conference papers

- A. Kolcun, S. Sysala: [RTIN-based strategies for local mesh refinement.](#) In J. Chleboun, P. Kůs, P. Přikryl, M. Rozložník, K. Segeth, J. Šístek, T. Vejchodský (eds.): PANM'20: Proceedings of 20th conference, Programs and Algorithms of Numerical Mathematics, Czech Academy of Sciences, Prague, 2021, pages 59-68.
- S. Sysala, R. Blaheta, A. Kolcun, J. Ščučka, K. Souček, P. Pan: [Computation of composite strengths by limit analysis.](#) Conference CEM, 2018.
- A. Kolcun, P. Raunigr: [Motion control of a spherical mobile robot based on uniform b-splines.](#) In T.E. Simos, Z. Kalogiratou, T. Monovasilis (eds.): ICCMSE 2018 proceedings, 2018.
- A. Hastiková, A. Kolcun, L. Staš, P. Koníček: [In situ stress determination from excavation-induced stress by the compact conical-ended borehole overcoring method.](#) In: Int. Symposium on International Society for Rock Mechanics, Vol. 2, 2016, pages 1203-1216.
- R. Jarusek, E. Volna, A. Kolcun, M. Kotyrba: [Hybrid Intelligent System for Point Localization](#) In: Advances in Intelligent Systems and Computing, 285, 2014.
- A. Kolcun: [Biquadratic S-Patch in Bézier form.](#) In V. Skala (ed.): WSCG 2011 conference proceedings, Pilsen, 2011, pages 201-207.