

Evgenija D. Popova — List of Publications

December 2020

1. E.D. Popova, Proving endpoint dependence in solving interval parametric linear systems. Numerical Algorithms (online 2020) DOI: [10.1007/s11075-020-00936-3](https://doi.org/10.1007/s11075-020-00936-3), ISSN:1017-1398 Free read-only access here: <https://rdcu.be/b38aM>
2. E.D. Popova, On a class of parameterized solutions to interval parametric linear systems. C. R. Acad. Bulg. Sci. (2020) 73, 5, 599-611. ISSN:1310-1331, DOI: [10.7546/CRABS.2020.05.02](https://doi.org/10.7546/CRABS.2020.05.02)
3. E.D. Popova, New parameterized solution with application to bounding secondary variables in FE models of structures, Applied Mathematics and Computation 378 (2020) 125205 DOI: [10.1016/j.amc.2020.125205](https://doi.org/10.1016/j.amc.2020.125205) Preprint in [arXiv:1812.07300](https://arxiv.org/abs/1812.07300)
4. E.D. Popova, I. Elishakoff, Novel interval model applied to derived variables in static and structural problems. Archive of Applied Mechanics (2020) 90(4):869-881. DOI: [10.1007/s00419-019-01644-8](https://doi.org/10.1007/s00419-019-01644-8)
5. E. D. Popova, Algebraic Solution to Interval Equilibrium Equations of Truss Structures, Applied Mathematical Modelling 65 (2019) 489–506. DOI:[10.1016/j.apm.2018.08.021](https://doi.org/10.1016/j.apm.2018.08.021)
6. E. D. Popova, Rank one interval enclosure of the parametric united solution set, BIT Numerical Mathematics 59(2):503–521, 2019. DOI:[10.1007/s10543-018-0739-4](https://doi.org/10.1007/s10543-018-0739-4)
7. E. D. Popova, Equilibrium equations in interval models of structures, Int. J. Reliability and Safety 12(1/2):218–235, 2018. DOI:[10.1504/IJRS.2018.10013814](https://doi.org/10.1504/IJRS.2018.10013814)
8. E. D. Popova, Enclosing the solution set of parametric interval matrix equation $A(p)X = B(p)$, Numerical Algorithms 78(2):423–447, 2018. DOI:[10.1007/s11075-017-0382-1](https://doi.org/10.1007/s11075-017-0382-1)
9. E. D. Popova, Parameterized outer estimation of AE-solution sets to parametric interval linear systems, Applied Mathematics and Computation 311 (2017):353-360. <http://dx.doi.org/10.1016/j.amc.2017.05.042>
10. E. D. Popova, Improved solution to the generalized Galilei’s problem with interval loads, Archive of Applied Mechanics 87 (2017) (1):115–127. DOI: [10.1007/s00419-016-1180-2](https://doi.org/10.1007/s00419-016-1180-2) (Preprint)
11. E. D. Popova, Interval Model of Equilibrium Equations in Mechanics, in: Freitag, S., Muhanna, R. L., Mullen, R. L. (eds.) Proceedings of REC’2016, Ruhr University Bochum, pp. 241–255, 2016. <http://www.math.bas.bg/~epopova/papers/16-EPopova-REC16.pdf>
12. E. D. Popova, Interval Algebraic Approach to Equilibrium Equations in Mechanics, in: K. Georgiev, M. Todorov, I. Georgiev (eds.), Advanced Computing in Industrial Mathematics, Studies in Computational Intelligence 681, Springer, 2017, pp. 161–173. DOI: [10.1007/978-3-319-49544-6_14](https://doi.org/10.1007/978-3-319-49544-6_14)
13. E. D. Popova, Outer bounds for the parametric controllable solution set with linear shape, in M. Nehmeier et al. (Eds.): SCAN 2014, LNCS 9553, pp. 138-147, 2016. http://dx.doi.org/10.1007/978-3-319-31769-4_12 (Preprint)
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<http://dx.doi.org/10.1016/j.amc.2015.08.003> (Preprint)
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<http://dx.doi.org/10.1016/j.camwa.2014.04.005> (Preprint)
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24. J. Garloff, E. D. Popova, and A. P. Smith: Solving Linear Systems with Polynomial Parameter Dependency with Application to the Verified Solution of Problems in Structural Mechanics, in A. Chinchuluun et al. (eds.), *Optimization, Simulation, and Control, Springer Optimization and Its Applications* 76, 2013, 301–318, Springer Science+Business Media, New York.
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