europass Curriculum vitae

PERSONAL INFORMATION

Petra Renáta Rigó (maiden name: Petra Renáta-Takács)

Hungary

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Date of birth 04/06/1992

EDUCATION AND TRAINING

2007–2011

Báthory István High School, Cluj-Napoca (Romania)

2011–2014

Babeș-Bolyai University, Faculty of Mathematics and Computer Science, mathematics, BSc, Cluj-Napoca (Romania)

2014–2016

Babeș-Bolyai University, Faculty of Mathematics and Computer Science, computational mathematics, MSc, Cluj-Napoca (Romania)

2014–2017

Babeș-Bolyai University, Faculty of Economics and Business Administration, BSc, Cluj-Napoca (Romania)

2016–Present

Budapest University of Technology and Economics, Faculty of Natural Sciences, Doctoral School of Mathematics and Computer Science, Budapest (Hungary)

PERSONAL SKILLS

Mother tongue(s) Hungarian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
German	C1	C1	C1	C1	C1
	Deutsches Sprachdiplom Niveau C1				
English	C1	C1	C1	C1	C1
	ECL level C1				
Romanian	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages - Self-assessment grid

Driving licence B

ADDITIONAL INFORMATION

List of publications:

1. S. Asadi, N. Mahdavi-Amiri, Zs. Darvay, *P. R. Rigó*: Full Nesterov-Todd step feasible interior- point algorithm for symmetric cone horizontal linear complementarity problem based on a positive-asymptotic barrier function, Optimization Methods and Software, DOI: 10.1080/10556788.2020.1734803, 2020.

2. Zs. Darvay, B. Kheirfam, *P. R. Rigó*: A new wide neighborhood primal-dual second-order corrector algorithm for linear optimization, Optimization Letters, DOI: 10.1007/s11590-019-01468-z, 2019.

3. Zs. Darvay, *P. R. Rigó*, E. Szénási. Infeasible interior-point algorithm for linear optimization based on a new search direction, In L. Zadnik Stirn, M. Kljajic Borštar, J. Žerovnik, S. Drobne, J. Povh eds., Proceedings of the 15th International Symposium on Operational Research SOR'19, Bled, Slovenia, pp. 475-480, 2019.

4. Zs. Darvay, T. Illés, B. Kheirfam, *P. R. Rigó*: A corrector-predictor interior-point method with new search direction for linear optimization, Central European Journal of Operations Research, DOI: 10.1007/s10100-019-00622-3, 2019.

5. Zs. Darvay, T. Illés, J. Povh, *P. R. Rigó*. Predictor-corrector interior-point algorithm for sufficient linear complementarity problems based on a new search direction. Operations Research Reports, ORR-2018-03, Department of Operations Research, Eötvös Loránd University of Sciences, pp. 1- 47, 2018.

6. Zs. Darvay, *P. R. Rigó*: New interior-point algorithm for symmetric optimization based on a positive-asymptotic barrier function, Numerical Functional Analysis and Optimization, 39(15):1705- 1726, 2018.

7. *P. R. Rigó*, Zs. Darvay: Infeasible interior-point method for symmetric optimization using a positive-asymptotic barrier, Computational Optimization and Applications, 71(2):483-508, 2018.

8. *P.-R. Takács*, Zs. Darvay: A primal-dual interior-point algorithm for symmetric optimization based on a new method for finding search directions, Optimization, 67(6), 889- 905, 2018.

9. Zs. Darvay, *P.-R. Takács*: New method for determining search directions for interiorpoint algorithms in linear optimization, Optimization Letters, 12(5), 1099-1116, 2018.

10. Zs. Darvay, *P-R Takács,* Large-step interior-point algorithm for linear optimization based on a new wide neighbourhood, Central European Journal of Operations Research, 2018.

11. *P. R. Rigó*, New trends in interior-point algorithms, In F. Friedler ed., Proceeding of the 8th VOCAL Optimization Conference: Advanced Algorithms (short papers), Esztergom, Hungary, p. 85-90, 2018.

12. Zs. Darvay, I.-M. Papp, *P.-R. Takács*: Complexity analysis of a full-Newton step interiorpoint method for linear optimization, Periodica Mathematica Hungarica, 73(1), 27-42, 2016,

13. Zs. Darvay, *P.-R. Takács*, New short-step interior-point algorithm for horizontal linear complementarity problem, In E. Bitay ed., Proceedings of the XXIst International Scientific Conference of Young Engineers, Cluj-Napoca, ISSN 2393-1280, 125-128, 2016, In Hungarian.

14. Zs. Darvay, *P.-R. Takács*, Interior-point algorithm for linear optimization based on the transformation of the centering equation, in E. Bitay ed., Proceedings of the XXth International Scientific Conference of Young Engineers, Cluj-Napoca, ISSN 2393-1280, 123-126, 2015, in Hungarian.

15. Zs. Darvay, I.-M. Papp, *P.-R. Takács*, An infeasible full-Newton step algorithm for linear optimization with one centering step in major iteration, Studia Universitatis Babes-Bolyai, Series Informatica, 59(1), 28-45, 2014.

16. Zs. Darvay, *P.-R. Takács*, Infeasible interior-point algorithm with locally self-concordant barrier function, In E. Bitay ed., Proceedings of the XIXth International Scientific Conference of Young Engineers, Cluj-Napoca, ISSN 2067-6 808, 129-132, 2014, in Hungarian.

17. *P.-R. Takács*, Applications of infeasible interior-point algorithms, In K. Havrelkáné Vállas ed., Conference in the frame of the Hungarian Science Celebration, Acta Periodica 10, Edutus Főiskola, Tatabánya, ISSN 2063-501X, 175-183, 2013, in Hungarian.

18. Zs. Darvay, Á. Mester, I.-M. Papp, *P.-R. Takács*, New infeasible interior-point algorithm for linear optimization, In E. Bitay ed., Proceedings of the XVIIIth International Scientific Conference of Young Engineers, Cluj-Napoca, ISSN 2067-6 808, 107-110, 2013, in Hungarian.

19. Zs. Darvay, *P.-R. Takács*, A new short-step algorithm for linearly constrained convex optimization problem, In E. Bitay ed., Proceedings of the XVIIIth International Scientific Conference of Young Engineers, Cluj-Napoca, ISSN 2067-6 808, 115-118, 2013, in Hungarian.

20. Zs. Darvay, Á. Felméri, N. Forró, I.-M. Papp, *P.-R. Takács*, A new interior-point algorithm for solving linear optimization problems, In E. Bitay ed., Proceedings of the XVIIth International Scientific Conference of Young Engineers, Cluj-Napoca, ISSN 2067-6 808, 87-90, 2012, in Hungarian.