

1 Publications and citations

1. P. Burai and J. Makó, *On certain Schur-convex functions*, Publ. Math. Debrecen, accepted.
2. P. Burai, *Convexity with respect to families of sections and lines and their application in optimization*, J. Global Optim. 64 (2016), no. 4, 649–662.
3. P. Burai, *Local-global minimum property in unconstrained minimization problems*, J. Optim. Theory Appl., 162 (2016), no.4, 34–46.
 - V. A. Oliveira and G. N. Silva, *On sufficient optimality conditions for multiobjective control problems*, J. Global Optim. 64 (2016), no. 4, 721–744.
 - A. Kaya, P. Bettinger, K. Boston, R. Akbulut, Z. Ucar, J. Siry, K. Merry and C. Cieszewski, *Optimisation in Forest Management*, Current Forestry Reports 2 (2016), no. 1, 1–17.
4. P. Burai, *Nonlinear optimization, functional equations and generalized convexity*, Habilitation dissertation (2014).
5. P. Burai, *Monotone operators and local-global minimum property of nonlinear optimization problems*, Ann. Univ. Sci. Budapest. Sect. Comput., 40 (2013), 151–158.
6. P. Burai and J. Jarczyk, *Conditional homogeneity and translitivity of Mak-Ples means*, Ann. Univ. Sci. Budapest. Sect. Comput., 40 (2013), 159–172.
7. P. Burai, A. Háy and T. Juhász, *A composite functional equation on Abelian groups*, Aequationes Math., 86/1-2 (2013), 57–64.
8. P. Burai, *Generalized convexity and the simplest case of Friedrichs'-Poincaré inequality*, Proceedings of the Thirteenth Symposium of Mathematics and its Applications, Editura Politehchica, Temesvr, 71–77, 2013.
9. P. Burai, *Necessary and sufficient condition on global optimality without convexity and second order differentiability*, Optim. Lett., 7/5 (2013), 903–911.

- V. A. Oliveira and G. N. Silva, *On sufficient optimality conditions for multiobjective control problems*, J. Global Optim. 64 (2016), no. 4, 721–744.
- 10. P. Burai, *Matkowski-Sutô Type Equation on Symmetrized Weighted Quasi-Arithmetic Means*, Results in Mathematics, 63 (2013), no.1-2, 397-408.
- 11. P. Burai and J. Dascăl, *The equality problem in the class of conjugate means*, Aequationes Mathematicae, 84 (2012), no. 1, 91-99.
 - A. Sonubon and S. Orankitajaroenl, *A functional equation with conjugate means derived from a weighted arithmetic mean*, Malays. J. Math. Sci. 9 (2015), no. 1, 21-31.
- 12. P. Burai, A. Háy and T. Juhász, *On approximately Breckner s -convex functions*, Control and Cybernetics 40/1 (2011), 91–101.
 - A. O. Akdemir, M. Avci, H. Kavurmaci and M. E. Özdemir, *Inequalities for convex and s -convex functions on $\Delta = [a, b] \times [c, d]$* , Journal of Ineq. and Appl., (2012), <http://www.journalofinequalitiesandapplications.com/content/pdf/1029-242X-2012-20.pdf>.
 - W. W. Breckner, *Rational s -convexity, A generalized Jensen-convexity*, Cluj University Press, 2011.
 - M. Tunç, *On some integral inequalities via h -convexity*, Miskolc Math. Notes 14/3 (2013), 1041–1057.
 - M. Tunç, *Some Hadamard-like inequalities via convex and s -convex functions and their applications for special means*, Mediterranean J. Math., DOI 10.1007/s00009-013-0373-y, 2013.
 - M. Z. Sarikaya and M. E. Kiris, *Some new inequalities of Hermite-Hadamard type for s -convex functions*, Miskolc Math. Notes Vol. 16 (2015), No. 1, 491–501.
- 13. P. Burai and A. Háy, *On approximately h -convex functions*, Journal of Convex Analysis 18/2 (2011), 447–454.
 - M. E. Özdemir, M. Z. Sarikaya and E. Set, *On some new inequalities of Hadamard type involving h -convex functions*, Acta Math. Univ. Comenian 79/2 (2010), 265–272.

- Gy. Maksa and Zs. Páles, *The equality case in some recent convexity inequalities*, Opuscula Math. 31/2 (2011), 269–277.
 - A. O. Akdemir, M. E. Özdemir, and S. Varošanec, *On some inequalities for h -concave functions*, Mathematical and Computer Modelling, 55/3–4 (2012), 746–753.
 - W. W. Breckner, *Rational s -convexity, A generalized Jensen-convexity*, Cluj University Press, 2011.
 - M. E. Özdemir, M. A. Latif and A. O. Akdemir, *On some Hadamard-type inequalities for product of two s -convex functions on the co-ordinates*, J. Ineq. Appl 21 (2012), 1-13.
 - A.O. Akdemir, M. E. Özdemir, E. Set and Ç. Yildiz, *On some new inequalities of Hadamard type for h -convex functions*, AIP Conference Proceedings 1470/1 (2012), 35–38.
 - M. Tunç, *Ostrowski-type inequalities via h -convex functions with applications to special means*, J. Inequal. Appl. 2013, 2013:326, 10 p..
 - M. Tunç, *On some integral inequalities via h -convexity*, Miskolc Math. Notes 14/3 (2013), 1041-1057.
 - M. Tunç, *On new inequalities for h -convex functions via Riemann-Liouville fractional integration*, Filomat 27/4 (2013), 559-565.
 - B.-Y. Xi and F. Qi, *Some inequalities of Hermite-Hadamard type for h -convex functions*, Advances in Inequal. App., 2/1 (2013), 1–15.
 - M.E. Ozdemir, M. Tunç and A. O. Akdemir, *On $(h-s)$ -convex functions and Hadamard-type inequalities*, Int. J. Open Problems Compt. Math., Vol. 6, No. 2, June 2013.
 - W. Liu, *Some Simpson type inequalities for h -convex and (α, m) -convex functions*, J. Comp. Anal. App., 16/1 (2014), 1005-1012.
 - M. A. Noor, K. I. Noor, M. U. Awan and S. Costache, *Some integral inequalities for harmonically h -convex functions*, Politehn. Univ. Bucharest Sci. Bull. Ser. A Appl. Math. Phys. 77 (2015), no. 1, 5-16.
14. P. Burai and A. Háy, *On Orlicz-convex functions*, Proceedings of the Twelfth Symposium of Mathematics and its Applications, Editura Politehnica, Temesvár, (2010), 73–79.

- Gy. Maksa and Zs. Páles, *The equality case in some recent convexity inequalities*, Opuscula Math. 31/2 (2011), 269–277.
 - M. Tunç, *On some integral inequalities via h -convexity*, Miskolc Math. Notes 14/3 (2013), 1041–1057.
15. P. Burai and A. Háy, *Bernstein-Doetsch type results for generalized convex functions*, Proceedings of the Twelfth Symposium of Mathematics and its Applications, Editura Politehnica, Temesvár, (2010), 118–124.
- Gy. Maksa and Zs. Páles, *The equality case in some recent convexity inequalities*, Opuscula Math. 31/2 (2011), 269–277.
16. P. Burai, A. Háy and T. Juhász, *Bernstein-Doetsch type results for s -convex functions*, Publ.Math. Debrecen 75/1-2 (2009), 23–31.
- Gy. Maksa and Zs. Páles, *The equality case in some recent convexity inequalities*, Opuscula Math. 31/2 (2011), 269–277.
 - M. E. Özdemir, H. Kavurmaci, A. O. Akdemir and M. Avci, *Inequalities for convex and s -convex functions on $\Delta = [a, b] \times [c, d]$* , Journal of Ineq. and Appl., (2012), 2012:20, 19 p..
 - W. W. Breckner, *Rational s -convexity, A generalized Jensen-convexity*, Cluj University Press, 2011.
 - M. Tunç, *On some integral inequalities via h -convexity*, Miskolc Math. Notes 14/3 (2013), 1041–1057.
 - M. Tunç, *Some Hadamard-like inequalities via convex and s -convex functions and their applications for special means*, Mediterranean J. Math., DOI 10.1007/s00009-013-0373-y, 2013.
 - W. Saleh and A. Kiliçman, *On generalized s -convex functions on fractal sets*, JP J. Geom. Topol. 17 (2015), no. 1, 6382.
 - M. Tunç and Ü. Şanal, *Some perturbed trapezoid inequalities for convex, s -convex and tgs -convex functions and applications*, Tbilisi Math. J. 8 (2015), no. 2, 87102.
17. P. Burai, *Comparability of certain homogeneous means*, International Series of Numerical Mathematics 157 (2008), 229–232, Birkhäuser Verlag Basel, Switzerland.

- Z.-H. Yang, *Schur power convexity of the Daróczy means*, Math.I-
nequal. Appl. 16 (2013), no. 3, 751762.
18. P. Burai, *Functional equations involving means (in Hungarian)* Ph.D.
dissertation (2008).
 19. P. Burai, *On the equivalence of equations involving means and solution
to a problem of Daróczy*, Aequationes Math. 75 (2008), 314–319.
 - Z. Daróczy, *Functional equations involving weighted quasi-arith-
metic means*, Annales Univ.Sci. Budapest, Sec. Comp. 27 (2007),
45–55.
 20. P. Burai, *A Matkowski-Sutô type equation*, Publ.Math. Debrecen 70/1-
2 (2007), 233–247.
 - J. Jarczyk, *Invariance of weighted quasi-arithmetic means (In Pol-
sish)*, Ph.D. dissertation (2007).
 - Sz. Baják and Zs. Páles, *Invariance for generalized quasi-arithmetic
means*, Aequationes Math. 77 (2008), 133–145.
 - Z. Makó and Zs. Páles, *On the equality of generalized quasi-
arithmetic means*, Publ.Math. Debrecen 72/3-4 (2008), 407–440.
 - Z. Daróczy and J. Dascăl, *On the general solution of a family
of functional equations with two parameters and its application*,
Mahtematica Pannonica 20/1 (2008), 27–36.
 - J. Jarczyk, *Invariance of quasi-arithmetic means with function
weights*, J. Math. Anal. Appl. 353/1, (2009), 134–140.
 - Z. Makó and Zs. Páles, *The invariance of the arithmetic mean
with respect to generalized quasi-arithmetic means*, J. Math. An-
nal. Appl. 353 (2009), 8–23.
 - J. Dascăl, *On a functional equation with symmetric component*,
Publ.Math. Debrecen 75/1-2 (2009), 407–440.
 - Sz. Baják and Zs. Páles, *Computer aided solution of the invari-
ance equation for two-variable Gini means*, Comp. Math. Appl.
58/2 (2009), 334–340.
 - Z. Daróczy, *Mean values and functional equations*, Differential
Equations and Dynamical Systems 17/1-2 (2009), 105–113.

- Z. Makó, *On the equality and invariance problem of two variable means and perturbation of monotonic functions*, Ph.D. dissertation (2010).
 - Sz. Baják and Zs. Páles, *Computer aided solution of the invariance equation for two-variable Stolarsky means*, Applied Math. and Computation 216 (2010), 3219–3227.
 - J. Jarczyk, *On an equation involving weighted quasi-arithmetic means*, Acta Math. Hungarica 129/1–2, (2010), 96–111.
 - Q. Zhang and B. Xu, *An invariance of geometric mean with respect to generalized quasi-arithmetic means*, J. Math. Anal. Appl. 379/1, (2011), 65–74.
 - Sz. Baják, *Invariance equations for two-variable means*, Ph.D. dissertation (2012).
 - Sz. Baják and Zs. Páles, *Solving invariance equations involving homogeneous means with the help of computer*, Appl. Math. Comp. 219/11 (2013), 6297–6315.
 - J. Jarczyk, *Determination of conjugate means by reducing to the generalized Matkowski-Sutô equation*, Acta Math. Hungarica 139 (1-2) (2013), 1–10.
21. P. Burai, *Extension theorem for a functional equation*, Journal of Applied Analysis 12/2 (2006), 293–299.
- Sz. Baják and Zs. Páles, *Invariance equation for generalized quasi-arithmetic means*, Aequationes Math. 77 (2008), 133–145.
 - Z. Makó and Zs. Páles, *On the equality of generalized quasi-arithmetic means*, Publ.Math. Debrecen 72/3-4 (2008), 407–440.
 - Z. Makó and Zs. Páles, *The invariance of the arithmetic mean with respect to generalized quasi-arithmetic means*, J.Math. Anal. and Appl. 353 (2009), 8–23.
 - Sz.s Baják and Zs. Páles, *Computer aided solution of the invariance equation for two-variable Gini means*, Comp. Math. Appl. 58/2 (2009), 334–340.
 - Z. Makó, *On the equality and invariance problem of two variable means and perturbation of monotonic functions*, Ph.D. dissertation (2010).

- Sz. Baják and Zs. Páles, *Computer aided solution of the invariance equation for two-variable Stolarsky means*, Applied Math. and Computation 216 (2010), 3219–3227.
 - Sz. Baják, *Invariance equations for two-variable means*, Ph.D. dissertation (2012).
 - Sz. Baják and Zs. Páles, *Solving invariance equations involving homogeneous means with the help of computer*, Appl. Math. Comp. 219/11 (2013), 6297–6315.
22. P. Burai and Á. Szász, *Homogeneity properties of subadditive functions*, Acta Acad. Paedagog. Agriensis Sect. Mat. (N.S.) 32 (2005), 189–201.
- S. Saminger and P. Sarkoci, *Dominance of ordinal sums of T_L and T_P* , New dimension in fuzzy logic and related technologies, Proceedings of the 5th EUSFLAT Conference, Ostrava, Czech Republic, (2007) 35–41.
 - H. Naseraldin and Y. T. Herer, *Integrating the Number and Location of Retail Outlets on a Line with Replenishment Decisions*, Management Science 54/9, (2008) 1666–1683.
 - J. Liang, M. Navara and T. Vetterlein, *Different Representations of Fuzzy Vectors*, Symbolic and Quantitative Approaches to Reasoning with Uncertainty, 10th European Conference, ECSQARU 2009, Verona, Italy, July 1-3, 2009. Proceedings Book Series, Lecture Notes in Computer Science, Springer, 700-711.
23. P. Burai and Á. Szász, *Coincidence theorems for subadditive and superadditive functions*, Carpathian J. Math., 21 (2005), no. 1-2, 21–26.
24. P. Burai and Á. Szász, *Relationships between homogeneity, subadditivity and convexity properties*, Univ. Beograd. Publ. Elektrotehn. Fak. Ser. Mat. 16 (2005), 77–87.
- A. W. Marshall and I. Olkin, *Life distributions. Structure of non-parametric, semiparametric, and parametric families*, Springer Series in Statistics. Springer, New York, 2007.
 - W. Słomczyński and K. Życzkowski, *Mathematical aspects of degressive proportionality*, Mathematical Social Sciences 63 (2012) 94–101.

- M. Alamgir, *Analysis of distance functions in graphs*, Ph.D. dissertation (2014), University of Hamburg.
- T. Lara, N. Merentes, R. Guintero and E. Rosales, *On approximate m -convexity of sub-homogeneous functions*, Math. Aeterna, Vol. 6, (2016), no. 2, 243–254.

2 Talks

1. *Extension theorem for a functional equation*, The Fifth Katowice- Debrecen Winter Seminar on Functional Equations and Inequalities, February 2 – 5, 2005, Bedlewo, Poland.
2. *Functional equation of Domsta and Matkowski*, The First International Student's Conference of Analysis, February 09 – 13, 2005, Szczyrk, Poland.
3. *Matkowski-Sutô type functional equations*, January 15 – 22, 2006, Karlsruhe, Germany.
4. *A Matkowski-Sutô type equation*, The Sixth Debrecen-Katowice Winter Seminar on Functional Equations and Inequalities, February 1 – 4, 2006, Berekfürdő, Hungary.
5. *A Matkowski-Sutô type equation*, The Second International Students Conference of Analysis, February 4 – 7, 2006, Sífőkút, Hungary.
6. *On a Matkowski- Sutô type equation*, 6th Joint Conference on Mathematics and Computer Science, July 12 – 15, 2006, Pécs, Hungary.
7. *On the equivalence of equations involving means and solution to a problem of Daróczy*, 11th International Conference on Functional Equations and Inequalities, September 17 – 23, 2006, Bedlewo, Poland.
8. *Means and their Gauss composition*, The Third International Students Conference of Analysis, February 3 – 6, 2007, Sífőkút, Hungary.
9. *Matkowski-Sutô equation on symmetrized weighted quasi-arithmetic means*, The Seventh Katowice- Debrecen Winter Seminar on Functional Equations and Inequalities, January 31 – February 3, 2007, Bedlewo, Poland.

10. *Equivalence of equations involving means*, 45th International Symposium on Functional Equations , June 24– July 1, 2007, Bielsko-Biała, Poland.
11. *Inequalities with Hölder and Daróczy means*, Conference on Inequalities and Applications , September 9 – 15, 2007, Noszvaj, Hungary.
12. *On a class of homogeneous means*, The Eighth Debrecen-Katowice Winter Seminar on Functional Equations and Inequalities, January 30– February 2 2008 , Poroszló, Hungary.
13. *On a class of homogeneous means*, The Fourth International Students Conference of Analysis, February 3 – 6, 2008 Zamárdi, Hungary.
14. *Additive operators satisfying further identities*, 46th International Symposium on Functional Equations , June 22 – 29, 2008, Opava, Czech Republic.
15. *Approximately s -convex functions*, 47th International Symposium on Functional Equations , June 14 – 20, 2009 ,Gargnano, Italy.
16. *Approximately s -convex functions*, 23th European Conference, on Operational Research, July 5 – 8, 2009, Bonn, Germany.
17. *Some results on Orlicz-convex functions*, 13th International Conference on Functional Equations and Inequalities, September 13 – 19, 2009, Mała Ciche, Poland.
18. *Some results on Orlicz-convex functions*, The 12th International Conference of Mathematics and its Applications, November 5 – 7, 2011, Temesvár, Romania.
19. *Approximately h -convex functions*, The 10th Debrecen-Katowice Winter Seminar on Functional Equations and Inequalities, February 3 – 6, 2010 , Zamardi, Hungary.
20. *Approximately h -convex functions*, 48th International Symposium on Functional Equations , June 13 – 18, 2010, Batz-sur-Mer, France.
21. *Regularity and convexity results on approximately h -convex functions*, 24th European Conference, on Operational Research, July 11–14, 2010, Lisbon, Portugal.

22. *Regularity and convexity results on h -convex and approximately h -convex functions*, Convexity and Applications, September 5–10, 2010, Iwonicz Zdrój, Poland, .
23. *Regularity and convexity results on Orlicz- and Breckner-convex functions*, Conference on Inequalities and Applications, September 19 – 25, 2010, Hajdúszoboszló, Hungary.
24. *Matkowski-Sutô type equation on symmetrized weighted quasi-arithmetic means*, 49th International Symposium on Functional Equations , June 19 – 26, 2011, Graz, Austria.
25. , 10th International Symposium on Generalized Convexity and Monotonicity , August 22 – 27, 2011, Kolozsvár, Romania.
26. *Connected and quasi-connected functions and their applications in optimization theory*, 50th International Symposium on Functional Equations , June 17 – 24, 2012, Hajdúszoboszló, Hungary.
27. *Necessary and sufficient condition on global optimality without convexity and second order differentiability*, The 21th International Symposium on Mathematical Programming, August 19 – 24, 2012, Berlin, Germany.
28. *Generalized convexity and the simplest case of Friedrichs'-Poincaré inequality*, The 13th International Conference of Mathematics and its Applications, November 1 – 3, 2012, Temesvár, Romania.
29. *Some results concerning generalized quasi-arithmetic means*, The 13th Debrecen-Katowice Winter Seminar on Functional Equations and Inequalities, January 30-February 2, 2013, Zakopane, Poland.
30. *Convexity with respect to families of generalized sections and generalized lines*, The 51th International Symposium on Functional Equations , June 16 – 23, 2013, Rzeszów, Poland.
31. *Monotone operators and local-global minimum property of optimization problems*, Numbers, Functions, Equations, June 28 – 30, 2013, Visegrád, Hungary.

32. *Local-global minimum property of nonlinear optimization problems*, The 26th European Conference on Operational Research, July 1 – 4, 2013, Rome, Italy.
33. *Generalized convexity and local-global minimum property of nonlinear optimization problems*, International Conference on Continuous Optimization , June 27-August 1, 2013, Lisbon, Portugal.
34. *A functional equation from optimization*, The 14th Debrecen-Katowice Winter Seminar on Functional Equations and Inequalities, January 29-February 1, 2014, Hajdúszoboszló, Hungary.
35. *Functional equation involving Makó-Páles means*, The 52th International Symposium on Functional Equations , June 22 – 29, 2014, Grillhof, Innsbruck, Austria.
36. *????????????????*, Conference on Inequalities and Applications'14, September 7 – 13, 2014, Hajdúszoboszló, Hungary.
37. *Generalized convexity and optimization*, XXXI. Hungarian Operational Research Conference, June 10 – 12, 2015, Cegléd, Hungary.
38. *A composite functional equation from algebraic aspect*, The 53rd International Symposium on Functional Equations , June 14 – 21, 2015, Hotel Pegaz, Krynica-Zdrój, Poland.
39. *Optimality conditions in unconstrained optimization*, OR2015, the annual international conference of the German Operations Research Society, September 1 – 4, 2015, University of Vienna, Vienna, Austria.
40. *On certain Schur-convex functions*, The 54th International Symposium on Functional Equations , June 12–19, 2016, Hotel Aurum, Hajdúszoboszló, Hungary.
41. *Generalized convexity concepts and their role in optimization*, The 28th European Conference on Operational Research, July 3–6, 2016 Poznań, Poland.
42. *On certain Schur-convex functions*, Conference on Inequalities and Applications'164, August 28- September 3, 2016, Hajdúszoboszló, Hungary.