

# Lista de lucrări

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## Articole publicate în reviste cotate ISI

1. Bagdasar,O., Popovici, N., *Extremal properties of generalized convex vector functions*, Journal of Nonlinear and Convex Analysis, to appear (accepted August 2015).
2. Popovici, N.: *A decomposition approach to vector equilibrium problems*, Annals of Operations Research, Published online April 3, 2015, DOI: 10.1007/s10479-015-1861-1
3. Kuroiwa, D., Popovici, N., Rocca, M., *A characterization of cone-convex vector-valued functions*, Carpathian Journal of Mathematics, 32 (2016) (1), 79-85.
4. Kuroiwa, D., Popovici, N., Rocca, M., *A characterization of cone-convexity for set-valued functions by cone-quasiconvexity*, Set-Valued and Variational Analysis, Published online 18 Oct 2014, DOI:10.1007/s11228-014-0307-2.
5. Bagdasar, O., Popovici, N., *Local maximum points of explicitly quasiconvex functions*, Optimization Letters, 9 (2015) (4), 769-777.
6. Alzorba, Sh., Günther, Chr., Popovici, N., *A special class of extended multicriteria location problems*, Optimization, 64 (2015) (5), 1305-1320.
7. Popovici, N., Rocca, M., *Scalarization and decomposition of vector variational inequalities governed by bifunctions*, Optimization, 62 (6) (2013), 735-742.
8. Popovici, N., Rocca, M., *Decomposition of vector variational inequalities*, Nonlinear Analysis: Theory, Methods and Applications, 75 (3) (2012), 1516-1523.
9. La Torre, D., Popovici, N., Rocca, M., *A note on explicitly quasiconvex set-valued maps*, Journal of Nonlinear and Convex Analysis, 12 (1) (2011), 113-118.
10. La Torre, D., Popovici, N.: *Arcwise cone-quasiconvex multicriteria optimization*, Operations Research Letters, 38 (2) (2010), 143-146.
11. La Torre, D., Popovici, N., Rocca, M.: *Scalar characterizations of weakly cone-convex and weakly cone-quasiconvex functions*, Nonlinear Analysis. Theory, Methods & Applications, 72 (3-4) (2010), 1909-1915.
12. Popovici, N.: *Involving the Helly number in Pareto reducibility*, Operations Research Letters, 36 (2008), 173-176.
13. Popovici, N.: *Explicitly quasiconvex set-valued optimization*, Journal of Global Optimization, 38 (2007), 103-118.
14. Ait Mansour M., Popovici, N., Théra, M.: *On directed sets and their suprema*, Positivity, 11 (2007), 155-169.
15. Popovici, N.: *Structure of efficient sets in lexicographic quasiconvex multicriteria optimization*, Operations Research Letters, 34 (2) (2006), 142-148.
16. Popovici, N.: *Pareto reducible multicriteria optimization problems*, Optimization, 54 (2005), 253-263.
17. Benoist, J., Popovici, N.: *Between quasiconvex and convex set-valued maps*, Applied Mathematics Letters, 17 (2004), 245-247.
18. Benoist, J., Borwein, M. J., Popovici, N.: *A characterization of quasiconvex vector-valued functions*, Proceedings of the American Mathematical Society, 131 (2003), 1109-1113.
19. Benoist, J., Popovici, N.: *Characterizations of convex and quasiconvex set-valued maps*, Mathematical Methods of Operations Research, 57 (2003), 427-435.

- 20.** Benoist, J., Popovici, N.: *Generalized convex set-valued maps*, Journal of Mathematical Analysis and Applications, 288 (2003), 161-166.
- 21.** Benoist, J., Popovici, N.: *Contractibility of the efficient frontier of three-dimensional simply-shaded sets*, Journal of Optimization Theory and Applications, 111 (2001), 81-116.
- 22.** Benoist, J., Popovici, N.: *The structure of the efficient frontier of finite dimensional completely-shaded sets*, Journal of Mathematical Analysis and Applications, 250 (2000), 98-117.

### Articole publicate în ISI proceedings

- 23.** Malivert, C., Popovici, N., *Bicriteria linear fractional optimization*, In: Nguyen, V. H., Strodiot, J.-J., Tossings, P. (Eds.), Optimization (Proceedings of the 9th Belgian-French-German Conference on Optimization, Namur, Belgium, September 7-11, 1998), Lecture Notes in Economics and Mathematical Systems, Springer, Vol. 481 (2000), pp. 305-319.

### Articole publicate în reviste internaționale

- 24.** Benoist, J., Popovici, N.: *Characterizations of finite dimensional shaded sets*, Nonlinear Analysis Forum, 7 (2002), 67-72 [MR1959933 (2003m:90110), Zbl 1038.90068].
- 25.** Malivert, C., Popovici, N.: *The structure of efficient sets in bicriteria quasilinear optimization*, Journal of Nonlinear and Convex Analysis, 2 (2001), 291-304 [MR1874119 (2002k:90097), Zbl 0995.90087].
- 26.** Popovici, N.: *Generalized quasiconvexity via properly characteristic functions associated to binary relations*, Acta Mathematica Vietnamica, 26 (2001), 169-175 [MR1848871 (2002f:26014), Zbl 0994.90126].

### Articole publicate în volume ale unor conferințe internaționale cu referenți

- 27.** Popovici, N.: *Scalar characterizations of generalized quasiconvex functions*, In: N. Hadjisavvas, J.E. Martinez-Legaz, J.-P. Penot (Eds), Generalized Convexity and Generalized Monotonicity, Proceedings of the 6th International Symposium on Generalized Convexity & Monotonicity, Karlovassi, Samos, Greece, August 30 - September 3, 1999. Lecture Notes in Economics and Mathematical Systems 502, Springer Verlag, 2001, 341-348. [MR1829455 (2002c:26017)].

- 28.** Popovici, N., Malivert, C.: *An algorithm for bicriteria optimization involving explicitly quasilinear objective functions*, In: G. Wanka (Ed.), Decision Theory and Optimization in Theory and Practice. Proceedings of the 9th Workshop of the GOR Working Group "Decision Theory and Practice", Chemnitz, Germany, March 3-5, 1999. Shaker Verlag, Aachen, 2000, 53-62.

- 29.** Popovici, N.: *The excess from efficiency in vector optimization*, In: A. Göpfert, J. Seeländer and Chr. Tammer (Eds.), Methods of Multicriteria Decision Theory. Proceedings of the 6th Workshop of the DGOR-Working Group Multicriteria Optimization and Decision Theory, Alexisbad, Germany, March 11-14, 1996. Hänsel-Hohenhausen Verlag, Egelsbach, 1997, 63-67.

### Articole publicate în reviste naționale

- 30.** Chiorean I., Lupșa L., Popovici, N.: *Unimodal multicriteria optimization via Fibonacci numbers*, Creative Mathematics and Informatics, 16 (2007), 114-123. [MR2310723 (2007m:90079)].

- 31.** Popovici, N.: *A note on the boundary of radiant sets*, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity, Vol. 5 (2007), 119-128. [Zbl 1180.90295]
- 32.** Lupşa L., Popovici, N.: *Generalized unimodal multicriteria optimization problems*, Revue d'Analyse Numérique et de Théorie de l'Approximation, 35 (2006), 65-70 [MR2290480].
- 33.** Popovici, N.: *Almost explicitly quasiconvex bicriteria optimization*, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity, 4 (2006), 101-109. [Zbl 1155.90452]
- 34.** Lupşa L., Popovici, N.: *A new algorithm for solving multicriteria unimodal optimization problems*, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity, 3 (2005), 123-130.
- 35.** Popovici, N.: *A characterization of cone-convex functions*, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity, 1 (2003), 123-131.
- 36.** Popovici, N.: *Generalized quasiconvex set-valued maps*, Revue d'Analyse Numérique et de Théorie de l'Approximation, Vol. 31 (2002), pp. 199-206. [Zbl 1084.26519].
- 37.** Popovici, N.: *Convexité au sens direct ou inverse et applications dans l'optimisation vectorielle*, Revue d'Analyse Numérique et de Théorie de l'Approximation, 29 (2000), 75-82 [MR1928250 (2003d:90094), Zbl 1025.90026].
- 38.** Popovici, N.: *Sur la structure topologique des ensembles d'efficience*, Mathematica (Cluj), 41 (1999), 233-241 [MR2044701, Zbl 1027.90068].
- 39.** Popovici, N.: *On the level sets of  $(T, \Omega)$ -quasiconvex functions*, Studia Universitatis Babeş-Bolyai, Ser. Mathematica, 43 (1998), 71-78 [MR1855329 (2002e:90086), Zbl 1009.52018].
- 40.** Popovici, N.: *Sur l'approximation des ensembles d'efficience*, Revue d'Analyse Numérique et de Théorie de l'Approximation, 27 (1998), 321-329 [MR1817555, Zbl 1025.90025].
- 41.** Popovici, N.: *Sur une notion abstraite de quasiconvexité*, Revue d'Analyse Numérique et de Théorie de l'Approximation, 26 (1997), 191-196 [MR1703937].
- 42.** Popovici, N.: *Convexité en espaces métriques via l'efficience de Pareto*, Mathematica (Cluj), 38 (1996), 169-175 [MR1606868 (99j:90075), Zbl 0904.90100].
- 43.** Popovici, N.: *L'écart d'efficience dans l'optimisation vectorielle*, Revue d'Analyse Numérique et de Théorie de l'Approximation, 25 (1996), 217-224 [MR1607342, Zbl 0906.90155].
- 44.** Popovici, N.: *Suites efficientes dans l'optimisation vectorielle*, Babeş-Bolyai University, Faculty of Mathematics, Research Seminars, Seminar on Mathematical Analysis, 7 (1994), 95-105 [MR1439550, Zbl 0912.90250].
- 45.** Popovici, N.: *The degree of efficiency in the multiobjective optimization problems*, Babeş-Bolyai University, Faculty of Mathematics and Informatics, Research Seminars, Seminar on Mathematical Analysis, 7 (1990), 143-154 [MR1168061, Zbl 0800.90738].
- 46.** Popovici, N.: *On a special class of Pareto bicriterial optimization problems*, Revue d'Analyse Numérique et de Théorie de l'Approximation, 19 (1990), 163-168 [MR1218920, Zbl 0742.90067].

### Articole publicate în volume ale unor conferințe naționale

- 47.** Popovici, N.: *Almost Explicitly Quasiconvex Functions*, In: E. Popoviciu (Ed.), Séminaire de la théorie de la meilleure approximation, convexité et optimisation, Editura SRIMA, Cluj-Napoca, 2002, 125-133.

**48.** Popovici, N.: *( $\Gamma, K$ )-quasiconvex set-valued maps*, In: E. Popoviciu (Ed.), Proceedings of the "Tiberiu Popoviciu" Itinerant Seminar of Functional Equations, Approximation and Convexity, Editura SRIMA, Cluj-Napoca, 2002, 223-230.

**49.** Popovici, N.: *Generalized quasiconvexity with respect to domination-type binary relations*, In: L. Lupşa and M. Ivan (Eds.), Analysis, Functional Equations, Approximations and Convexity. Proceedings of the Conference Held in Honour of Professor Elena Popoviciu, Cluj-Napoca, October 15-16, 1999. Editura Carpatica, Cluj-Napoca, 1999, 251-256 [MR1819576, Zbl 1084.52507].

**50.** Popovici, N.: *Polygonal convexity in multicriteria linear fractional optimization*, In: E. Popoviciu (Ed.), Research on Theory of Allure, Approximation, Convexity and Optimization, Editura SRIMA, Cluj-Napoca, 1999, 249-256.

**51.** Popovici, N.: *Multicriteria optimization with unimodal objective functions*, In: D.D. Stancu, Gh. Coman, W.W.Breckner and P. Blaga (Eds.), Approximation and Optimization, Vol. I. Proceedings of the International Conference on Approximation and Optimization, Cluj-Napoca, July 29 - August 1, 1996. Editura Transilvania Press, Cluj-Napoca, 1997, 341-344 [MR1487117, Zbl 0907.90234].

## Alte articole

**52.** Breckner, B. E., Popovici, N.: *An overview of five separation notions*, In: Șt. Cobzaș (ed.): Topics in Mathematics, Computer Science and Philosophy. A Festschrift for Wolfgang W. Breckner on his 65th Anniversary, Presa Universitară Clujeană, Cluj-Napoca, 2008, 43-55 [MR2410722].

**53.** Popovici, N.: *Spre o nouă matematică*, Revista Echinox, Cluj-Napoca, XVIII-7/8 (1986), p. 10.

**54.** Popovici, N.: *Problema începutului exprimată matematic*, In: Lucrări prezentate la edițiile a II-a și a III-a a Colecviului Studențesc „Istoria și Filosofia Științei”, Vol. II, Centrul de multiplicare al Universtații „Al. I. Cuza”, Iași, 1988, 754-765.

## Materiale editoriale

**1.** Mordukhovich, B.S., Popovici, N., Sheu, R.-L., *Preface: special issue of JOGO-GCM10*, J. Global Optim., Vol. 57 (3) (2013), pp. 613-615.

## Cărți publicate în edituri naționale acreditate

**1.** Popovici, N.: *Optimizare vectorială*, Casa Cărții de Știință, Cluj-Napoca, 2005 (256 pagini, ISBN 973-686-787-0).

**2.** Breckner, B. E., Popovici, N.: *Convexity and Optimization: An Introduction*, EFES, Cluj-Napoca, 2006 (202 pagini, ISBN 978-973-7677-54-9).

**3.** Breckner, B. E., Popovici, N.: *Probleme de analiză convexă în  $R^n$* , Casa Cărții de Știință, Cluj-Napoca, 2003 (140 pagini, ISBN 973-686-504-5).

**4.** Breckner, B. E., Popovici, N.: *Probleme de cercetare operațională*, EFES, Cluj-Napoca, 2006 (258 pagini, ISBN 973-7677-12-9).

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