

CURRICULUM VITAE
of
PANDO G. GEORGIEV

Updated November, 2013

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Research experience and interests

- data analysis (kernel methods for pattern analysis, subspace clustering, high dimensional data), machine learning (classification, sparse support vector machines and extensions, manifold learning, nonlinear classifiers), statistical signal and image processing (independent and sparse component analysis, blind signal separation) and their applications to brain imaging and biomedical sciences;
- optimization, operations research, statistics, equilibrium and inverse problems, and their applications in biomedical sciences and energy problems;
- variational and non-smooth analysis and their applications, set-valued and functional analysis, geometry of Banach spaces.

Degrees:

- D.Sc. in Mathematics (Operations Research), Habilitation, July 2001, Sofia University “St. Kl. Ohridski”, Faculty of Mathematics and Informatics
- Ph.D. in Mathematics (Operations Research), January 1987, Sofia University “St. Kl. Ohridski”, Faculty of Mathematics and Informatics (Supervisor: Acad. P. Kenderov).
- Master of Mathematics, (Operations Research) July 1982, Sofia University “St. Kl. Ohridski”, Faculty of Mathematics and Informatics, (Supervisor: Acad. P. Kenderov).

Faculty and research positions:

- Center for Applied Optimization, ISE Dept., University of Florida – Assoc. Research Scientist (Jan. 2009 – Sept. 2010), Researcher (Oct. 2010 - present).
- ECECS (Electrical & Computer Engineering and Computer Science) Department, University of Cincinnati, Cincinnati, Ohio – Visiting Scholar (Aug. 2004 – Dec. 2008).
- Department of Mathematical Sciences, University of Cincinnati – Adjunct Associate Professor, Sept. 2006 - Aug. 2007.

- Laboratory for Advanced Brain Signal Processing, Brain Science Institute, The Institute of Physical and Chemical Research (RIKEN), Wako-shi, 2-1 Hirosawa, Saitama 351-0198, Japan – Research Scientist, (Oct. 2000 – July 2004).
- Hirosaki University, Department of Mathematical System Science, Japan – Visiting Professor (Nov. 1999 – Oct. 2000).
- Sofia University “St. Kl. Ohridski”, Faculty of Mathematics and Informatics, Department of Probability, Operations Research and Statistics, Assistant Professor (Feb. 1989 – Dec. 1994), Associate Professor (Dec. 1994 – Aug. 2006), Elected Full Professor (Aug. 2006).

Teaching experience (in reverse chronological order):

- Short course “Optimization methods for data analysis”, Summer School on Operational Research and Applications, May 2–6, 2012, Nizhny Novgorod, Russia.
- “Kernel methods for data mining”, University of Florida, ISE Department, Winter semester 2010.
- Short course “Data mining for healthcare professionals”, at the “International Conference on Systems Analysis Tools for Better Health Care Delivery: A New Engineering Health Care Partnership”, March 24 – 26, 2010, Gainesville, Florida.
- “Variational analysis”, National Sun Yat-sen University, Taiwan, April-May 2008, lectures for graduate students.
- in Department of Mathematical Sciences, University of Cincinnati: *Calculus I, II, III, Elementary Probability and Statistics, Calculus and Anal. Geometry IV, Linear Algebra I, II*.
- in Computer Science Department, University of Cincinnati: *Statistical learning theory – kernel methods for pattern analysis*, lectures for graduate students.
- in the Faculty of Mathematics and Informatics, Sofia University “St. Kl. Ohridski”, Bulgaria: Main course on *Optimization* for undergraduate students, part I and part II, delivered 5 years; *Numerical Methods and Optimization*, lectures undergraduate students, delivered 2 years; *Applied Nonlinear Analysis*, lectures for graduate students, delivered 3 years; *Optimality and Equilibrium*, lectures for graduate students, delivered 3 years; *Optimal Control and Calculus of Variations*, lectures for graduate students, delivered 2 years; *Mathematical Economics*, lectures for graduate students, delivered 2 years.
- Participated in editing, correction and development of the book “Adaptive Blind Signal and Image Processing” by A. Cichocki and S. Amari, John Wiley & Sons, 2002
- Participated in development of software packages “ICA Lab. for Signal Processing and “ICA Lab. for Image Processing” (see <http://www.bsp.brain.riken.jp>).

Supervised Ph.D. Students: Nadia P. Zlateva - defended Ph.D. thesis 1999, now Associate Professor, Sofia University “St Kl. Ohridski”

Supervised Master of Science Students: 9, defended.

Computer skills:

- Matlab, C++, Visual Basic, LaTeX, Word, Powerpoint

- Co-author of software packages "ICA Lab. for Signal Processing and "ICA Lab. for Image Processing", free downloadable at <http://www.bsp.brain.riken.jp>

Visiting positions, awards:

- Miami University, Oxford (Ohio), Dept. of Mathematics, Distinguished Visiting Professor, Aug. 15, 2009 - May 9, 2010, declined by family reasons.
- National Sun Yat-sen University, Taiwan, April-May 2008, Visiting Professor.
- Laboratory for Advanced Brain Signal Processing, Brain Science Institute, The Institute of Physical and Chemical Research (RIKEN), Wako-shi, 2-1 Hirosawa, Saitama 351-0198, Japan, January-February 2008, Visiting Professor.
- Laboratory of Mathematical Neuroscience, Brain Science Institute, The Institute of Physical and Chemical Research (RIKEN), Wako-shi, 2-1 Hirosawa, Saitama 351-0198, Japan, July 2005, Visiting Professor.
- Hirosaki University, Japan, Dec. 1999 - Oct. 2000, Japan Society for Promotion of Science (JSPS) award and local grant, Visiting Professor.
- University of Rome II, Italy, 1.5 months, July and September 1999, CNR grant (Italy).
- University of Pau, France, 3 months, 1999, NATO grant CB/JB SC105 N^o 44/96165.
- University of Rome II, "Tor Vergata", Italy, 1 month, July 1998, CNR grant (Italy).
- Complutensa University Madrid, 1 week, November 1997 (local grant).
- University of Messina, Italy, 1 week, October 1997 (award of Ministry of Education and Science in Bulgaria).
- University of Rome II, "Tor Vergata", 1 month, 1996, CNR grant (Italy).
- University of Mons-Hainaut, Belgium, 1 month, 1995, TEMPUS grant, European Union, (for curriculum development).
- University of Rome II, "Tor Vergata", 1 month, 1995, TEMPUS grant, European Union (for curriculum development).
- International Center for Theoretical Physics (ICTP), Trieste, Italy, 6 months, 1995 (ICTP grant).
- Gold medal in the National Competition for high school students' papers in mathematics, (1975, Bulgaria).

Grant proposals funded:

- Improvement Capability Grant: *Applying Systems Engineering Concepts to Improve Efficiency, Patient Satisfaction, and Quality of Care in a Veterans Health Administration Medical Center*, Veterans Health Administration, Office of Systems Redesign, \$300,000 (2009-2010). Team involves VAMC, Tampa, FL & Center for Applied Optimization, University of Florida, Gainesville, FL. Role: Co-PI.
- Florida Energy System Consortium (2011-2012): *Optimization, robustness and equilibrium modeling for the Florida Smart Grid*, \$30,000. Role: Co-PI.

Invited Seminars: in more than 20 Universities in Europe, Asia, USA.

International conferences (lectures): more than 40 conferences in Europe, Asia, USA.

International conferences – committee member:

- International Conference on Optimization, Simulation and Control Ulaanbaatar, Mongolia, July 25 - 28, 2010, <http://www.ise.ufl.edu/cao/cosc2010/Committee.html>
- International Conference on Biomedical Data & Knowledge Mining: Towards Biomarker Discovery July 7 - 9, 2010, Chania, Crete, Greece, <http://www.ise.ufl.edu/cao/DMBIO2010/DMBIO2010/Welcome.html>
- International Conference on Systems Analysis Tools for Better Health Care Delivery: A New Engineering Health Care Partnership March 24 - 26, 2010. Gainesville, Florida, <http://www.ise.ufl.edu/cao/hc2010>
- Conference on Energy, Sustainability and Climate Change February 26 - 28 2010 Gainesville, Florida, <http://www.ise.ufl.edu/cao/escc2010/>
- 2nd International Conference on the Dynamics of Information Systems February 3-5, 2010, Destin, Florida, <http://www.ise.ufl.edu/cao/dis2010/>
- 8th International Conference on Independent Component Analysis and Signal Separation – ICA2009, March 15 – 18, 2009, Brazil, <http://www.ica2009.org/>
- 7th International Conference on Independent Component Analysis and Signal Separation, London, UK 9 - 12 September 2007, <http://www.elec.qmul.ac.uk/ica2007/>
- "Data Mining, Systems Analysis and Optimization in Neuroscience", University of Florida, February 2006, <http://www.ise.ufl.edu/cao/neuroscience2006/>
- 6th International Conference on "Independent Component Analysis and Blind Source Separation", ICA2006 Charleston, South Carolina, USA, March 5-8, 2006, <http://www.cnel.ufl.edu/ica2006/committees.php>
- 4th International Conference on "Independent Component Analysis and Blind Source Separation", Nara, Japan April 2003, <http://www.kecl.ntt.co.jp/icl/signal/ica2003/>

Membership: American Mathematical Society, INFORMS, Mathematical Optimization Society, Institute of Electrical and Electronic Engineers, Union of the Bulgarian Mathematicians.

Other activities: member of the Specialized Scientific Council for Mathematics at the High Attestation Committee, Bulgaria (1997 - 2001).

Reviewer: Journal of Global Optimization, Optimization Letters, Journal of Optimization Theory and Applications, Journal of Mathematical Analysis and Applications, Computational Optimization and Applications, Digital Signal Processing.

External Reviewer: MS thesis "Brain Connectivity Analysis of Functional Magnetic Resonance Data for Story Comprehension in Children Using Group Independent Component Analysis and Structural Equation Modeling", by PR Karunanayaka, University of Cincinnati, 2007.

PUBLICATIONS

Updated November, 2013

Citations: All – 1054, since 2008 – 560

h-index – 14, since 2008 – 10

i10-index – 23, since 2008 – 13

Source: <http://scholar.google.com/citations?user=BHmBH6oAAAAJ&hl=en>**Edited books**

1. *Nonlinear analysis. Stability, approximation, and inequalities.* In honor of Themistocles M. Rassias on the occasion of his 60th birthday. Editors: Panos M. Pardalos, Pando G. Georgiev and Hari M. Srivastava. Springer Optimization and Its Applications, Vol. 68, Springer, New York, 2012, xxx+893 pp.
2. *Systems Analysis Tools for Better Health Care Delivery*, Editors: Panos M. Pardalos, Pando G. Georgiev, Petraq Papajorgji, Britta Neugaard, Springer Optimization and Its Applications, Vol. 74, Springer, New York, 2013, xxx+178 pp.

Refereed journal papers and book chapters

1. Georgiev, Pando G., Luis Snchez-Gonzlez, and Panos M. Pardalos, *Construction of Pairs of Reproducing Kernel Banach Spaces*, Constructive Nonsmooth Analysis and Related Topics. Springer New York, 2014. 39-57.
2. Olsson, Daniel, Pando Georgiev, and Panos M. Pardalos, *Kernel Principal Component Analysis: Applications, Implementation and Comparison*, Models, Algorithms, and Technologies for Network Analysis, Springer New York, 2013. 127-148.
3. Georgiev, Pando Gr.; Luc, Dinh The; Pardalos, Panos M., *Robust aspects of solutions in deterministic multiple objective linear programming*, European J. Oper. Res. 229 (2013), no. 1, 29–36.
4. A. Georgieva, V. Pappu, V. Krishna, P. Georgiev, I. Ghiviriga, P. Indeglia, X. Xu, Z. Hugh Fan, B. Koopman, P. Pardalos, B. Moudgil; *Polyhydroxy Fullerenes*, Journal of Nanoparticle Research, (2013) 15:1690.
5. Neng Fan, Syed Mujahid, Jicong Zhang, Pando Georgiev, Petraq Papajorgji, Ingrida Steponavice, Britta Neugaard, Panos Pardalos, *Nurse Scheduling Problem: An Integer Programming Model with a Practical Application*, in “System Analysis Tools for Better Health Care Delivery”, Springer Optimization and Its Applications, Vol. 74, Springer, New York, 2013, 65–98.
6. Fenn, M.B., Pappu, V., Georgiev, P., Pardalos, P.M. *Raman spectroscopy utilizing Fisher-based feature selection combined with support vector machines for the characterization of breast cancer cell lines.* Journal of Raman Spectroscopy, 2013, 44, 939–948.
7. M.N. Syed, P. G. Georgiev and P. M. Pardalos, *A hierarchical approach for sparse source Blind Signal Separation problem*, Computers and Operations Research, 2012, <http://dx.doi.org/10.1016/j.cor.2012.12.002>

8. Pando Georgiev, Lars Kindermann and Panos M. Pardalos, *Iterative Roots of Multidimensional Operators and Applications to Dynamical Systems*, Optimization letters, 2012, 1-10, DOI 10.1007/s11590-012-0532-2
9. Georgiev, Pando G.; Tanaka, Tamaki; Kuroiwa, Daishi; Pardalos, Panos M., *Nash equilibrium and saddle points for multifunctions*, Commun. Math. Anal. 10 (2011), no. 2, 118–127.
10. Pando Georgiev, Panos Pardalos, *Generalized Nash equilibrium problems for lower semi-continuous strategy maps*, *Journal of Global Optimization*, Volume 50, Issue 1, May 2011, 119–125.
11. Pando Georgiev, Altannar Chinchuluun and Panos Pardalos, *Optimality conditions of first order for global minima of locally Lipschitz functions*, Optimization: A Journal of Mathematical Programming and Operations Research, Volume 60, Issue 1 & 2, 2011, Pages 277 - 282
12. Georgiev, Pando G., *Parameterized variational inequalities*, *Journal of Global Optimization*, Volume 47, Issue 3 (July 2010), 457 - 462.
13. Georgiev, Pando G.; Theis, Fabian J., *Optimization techniques for data representations with biomedical applications*, Handbook of optimization in medicine, 253–290, Springer Optim. Appl., 26, Springer, New York, 2009.
14. P. Georgiev, *Nonlinear skeletons on data sets and applications - methods based on subspace clustering*, published in "Centre de Recherches Mathematiques, CRM Proceedings and Lecture Notes, Vol. 45, 2008, pp. 95 - 108.
15. Georgiev, Pando G.; Pardalos, Panos M.; Chinchuluun, Altannar, *Localization of minimax points*, J. Global Optim. 40 (2008), no. 1-3, 489–494. MR2373575
16. Georgiev, Pando; Pardalos, Panos; Theis, Fabian, *A bilinear algorithm for sparse representations*, Comput. Optim. Appl. 38 (2007), no. 2, 249–259. MR2349935 (2008g:65063)
17. Georgiev, Pando; Pardalos, Panos; Cichocki, Andrzej, *Algorithms with high order convergence speed for blind source extraction* Comput. Optim. Appl. 38 (2007), no. 1, 123–131. MR2332404 (2008f:65109)
18. Theis, Fabian J.; Georgiev, Pando; Cichocki, Andrzej, *Robust sparse component analysis based on a generalized Hough transform*, EURASIP J. Adv. Signal Process. 2007, Art. ID 52105, 13 pp. MR2299326 (2008f:94006)
19. Georgiev, Pando Gr., *Second-order Clarke subdifferential of $C^{1,1}$ functions*, Nonlinear analysis and convex analysis, 105–110, Yokohama Publishers, Yokohama, 2007. MR2286165
20. Georgiev, Pando; Ralescu, Anca; Ralescu, Dan, *Cross-cumulant measure for independence*, J. Statist. Plann. Inference 137 (2007), no. 3, 1085–1098. MR2301738
21. Pando Georgiev, Fabian Theis and Anca Ralescu, *Identifiability conditions and subspace clustering in sparse BSS*, Lecture Notes Computer Sci. 4666, pp. 357364, 2007, M.E. Davies et al. (Eds.): ICA 2007, Springer-Verlag Berlin Heidelberg 2007.
22. Georgiev P., F. Theis, A. Cichocki and H. Bakardjian, *Sparse component analysis: a new tool for data mining*, book chapter, Data Mining in Biomedicine, pages 91–116, 2007.

23. Georgiev, Pando G.; Theis, Fabian; Cichocki, Andrzej, *Optimization algorithms for sparse representations and applications*, Multiscale optimization methods and applications, 85–99, Non-convex Optim. Appl., 82, Springer, New York, 2006. MR2191578
24. Pando Georgiev, Danielle Nuzillard and Anca Ralescu, *Sparse Deflations in Blind Signal Separation*, Lecture Notes in Computer Science 3889, Springer 2006, pp. 807–814 (Proc. 6th International Conference on Independent Component Analysis and Blind Signal Separation, March 2006, Charleston, SC).
25. Georgiev P., F. Theis and A. Cichocki, *Sparse Component Analysis and Blind Source Separation of Underdetermined Mixtures*, IEEE Transactions of Neural Networks, Vol. 16, No. 4, July 2005, 992 – 996.
26. Georgiev, Pando Gr., Parametric Borwein-Preiss variational principle and applications. Proc. Amer. Math. Soc. 133 (2005), no. 11, 3211–3225.
27. Georgiev, Pando Gr., Porosity and differentiability in smooth Banach spaces. Proc. Amer. Math. Soc. 133 (2005), no. 6, 1621–1628.
28. Pando Georgiev and Henry Tuckwell, “On the possible use of ICA to identify synaptic inputs from observations of several neurons”, *Neurocomputing* **67** (2005) 450 - 455.
29. P. Georgiev and F. Theis, *Blind Source Separation of Linear Mixtures with Singular Matrices*, Lecture Notes in Computer Science, Springer-Verlag Heidelberg, Vol. 3195, 2004, pp. 121 – 128.
30. F.J. Theis, P. Georgiev, and A. Cichocki, *Blind source recovery: algorithm comparison and fusion*, In Proc. of 24-th International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering (MaxEnt 2004), volume 735 of AIP (American Institute of Physics) conference proceedings, pages 320-327, Garching, Germany, 2004.
31. Georgiev P., A. Cichocki and H. Bakardjian, *Optimization techniques for independent component analysis with applications to EEG data*, chapter in the book “Quantitative Neuroscience: Models, Algorithms, Diagnostics, and Therapeutic Applications”, pp. 53-68, Boston, USA: Kluwer Academic, 2004.
32. Georgiev, Pando Gr., *Random critical points*, Proc. 3-rd Intern. Conf. on Nonlinear analysis and convex analysis, 49–57, Yokohama Publishers, Yokohama, 2004.
33. Daniilidis, A.; Georgiev, P., Cyclic hypomonotonicity, cyclic submonotonicity, and integration. J. Optim. Theory Appl. 122 (2004), no. 1, 19–39.
34. De Blasi, F. S.; Georgiev, P. G.; Myjak, J., On porous sets and best approximation theory. J. Nonlinear Convex Anal. 5 (2004), no. 2, 247–255.
35. Daniilidis, Aris; Georgiev, Pando, Approximate convexity and submonotonicity. J. Math. Anal. Appl. 291 (2004), no. 1, 292–301.
36. Georgiev, Pando; Cichocki, Andrzej, “Sparseness theorems and sparse representation of signals”. Nonlinear analysis and convex analysis (Kyoto, 2003). *Sūrikaisekikenkyūsho Kōkyūroku* No. 1386 (2004), 13-25.

37. Nishizawa, Shogo; Tanaka, Tamaki; Georgiev, Pando Gr., On inherited properties for vector-valued multifunctions. Multi-objective programming and goal programming, 215–220, Adv. Soft Comput., Springer, Berlin, 2003.
38. Georgiev, P., and A. Cichocki, “Robust Independent Component Analysis via Time-Delayed Cumulant Functions”, *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, Vol. E86-A, No.3 (2003), pp. 573-579.
39. Cichocki, A., and P. Gr., Georgiev, “Blind Source Separation Algorithms with Matrix Constraints”, *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, Vol. E86-A, No. 3 (2003), pp. 522-531 (invited paper).
40. Donchev, Tzanko; Georgiev, Pando, Relaxed submonotone mappings. Abstr. Appl. Anal. 2003, no. 1, 19–31.
41. De Blasi, Francesco S.; Georgiev, Pando Gr., Hukuhara’s topological degree for non compact valued multifunctions. Publ. Res. Inst. Math. Sci. 39 (2003), no. 1, 183–203.
42. Daniilidis, Aris; Georgiev, Pando; Penot, Jean-Paul, Integration of multivalued operators and cyclic submonotonicity. Trans. Amer. Math. Soc. 355 (2003), no. 1, 177–195.
43. Georgiev, Pando; Cichocki, Andrzej, On some new ideas and algorithms for independent component analysis. Nonlinear analysis and convex analysis (Kyoto, 2001). Sūrikaiseikikenkyūsho Kōkyūroku No. 1246 (2002), 19–30.
44. De Blasi, Francesco S.; Georgiev, Pando Gr., On a fixed point theorem of Ky Fan. Acta Math. Sin. (Engl. Ser.) 18 (2002), no. 2, 363–374.
45. Georgiev, P., and Andrzej Cichocki, “Robust Blind Source Separation utilizing second and fourth order statistics”, *Lectures Notes in Computer Science*, **2415**(2002), pp. 1162-1167.
46. Finet, C.; Georgiev, P., Optimization by n -homogeneous polynomial perturbations. Hommage Pascal Laubin. Bull. Soc. Roy. Sci. Lige 70 (2001), no. 4-6, 251–257 (2002).
47. Georgiev, Pando Gr., ; Tanaka, Tamaki, Fan’s inequality for set-valued maps. Proceedings of the Third World Congress of Nonlinear Analysts, Part 1 (Catania, 2000). Nonlinear Anal. 47 (2001), no. 1, 607–618.
48. De Blasi, Francesco S.; Georgiev, Pando Gr., Kakutani-Fan’s fixed point theorem in hyperspaces. Tokyo J. Math. 24 (2001), no. 2, 331–342.
49. Nishizawa, Shogo; Tanaka, Tamaki; Georgiev, Pando Gr., On the heredity of the convexity of set-valued maps. Perspective and problems for dynamic programming with uncertainty (Kyoto, 2001). Sūrikaiseikikenkyūsho Kōkyūroku No. 1207 (2001), 67–78.
50. Scalarization of set-valued maps and Ky Fan inequalities. Perspective and problems for dynamic programming with uncertainty (Kyoto, 2001). Sūrikaiseikikenkyūsho Kōkyūroku No. 1207 (2001), 55–66.
51. Georgiev, Pando Gr., ; Tanaka, Tamaki, Minimax theorems for vector-valued multifunctions. Nonlinear analysis and convex analysis (Kyoto, 2000). Sūrikaiseikikenkyūsho Kōkyūroku No. 1187 (2001), 155–164.

52. Georgiev, Pando Gr., ; Tanaka, Tamaki, Ky Fan's inequality for set-valued maps with vector-valued images. *Nonlinear analysis and convex analysis* (Kyoto, 2000). *Sūrikaiseikikenkyūsho Kōkyūroku* No. 1187 (2001), 143–154.
53. Georgiev, P. G., Parametric Ekeland's variational principle. *Appl. Math. Lett.* 14 (2001), no. 6, 691–696.
54. De Blasi, Francesco S.; Georgiev, Pando Gr., A random variational principle with application to weak Hadamard differentiability of convex integral functionals. *Proc. Amer. Math. Soc.* 129 (2001), no. 8, 2253–2260.
55. Georgiev, Pando Gr., Parametric variational principles in Banach spaces and selection theorems. *Mathematical science of optimization* (Kyoto, 2000). *Sūrikaiseikikenkyūsho Kōkyūroku* No. 1174 (2000), 217–229.
56. Georgiev, Pando Gr., ; Tanaka, Tamaki, Vector-valued set-valued variants of Ky Fan's inequality. *J. Nonlinear Convex Anal.* 1 (2000), no. 3, 245–254.
57. Georgiev, Pando G., A modified smooth variational principle and its parametrization. *Compt. Rend. Acad. Bulg. Sci.* 53 (2000), no. 9, 17–20.
58. Georgiev, Pando Grigorov; Tanaka, Tamaki, Fan's inequalities for vector-valued multifunctions. *Proc. Japan Acad. Ser. A Math. Sci.* 76 (2000), no. 9, 153–157.
59. Georgiev, Pando Gr., Variational principles in Banach spaces and their parametrizations. *Research on nonlinear analysis and convex analysis* (Kyoto, 1999). *Sūrikaiseikikenkyūsho Kōkyūroku* No. 1136 (2000), 13–27.
60. Georgiev, Pando Gr., ; Zlateva, Nadia P., Reconstruction of the Clarke subdifferential by the Lasry-Lions regularizations. *J. Math. Anal. Appl.* 248 (2000), no. 2, 415–428.
61. Georgiev, P. G.; Granero, A. S.; Jimnez Sevilla, M.; Moreno, J. P., Mazur intersection properties and differentiability of convex functions in Banach spaces. *J. London Math. Soc.* (2) 61 (2000), no. 2, 531–542.
62. Georgiev, P.; Zlateva, N., Lasry-Lions regularizations and reconstruction of subdifferentials. *Compt. Rend. Acad. Bulg. Sci.* 51 (1998), no. 9-10, 9–12.
63. Georgiev, Pando Gr., ; Zlateva, Nadia P., Generic Gateaux differentiability via smooth perturbations. *Bull. Austral. Math. Soc.* 56 (1997), no. 3, 421–428.
64. Georgiev, Pando Gr., Submonotone mappings in Banach spaces and applications. *Set-Valued Anal.* 5 (1997), no. 1, 1–35.
65. Georgiev, Pando Gr., ; Todorov, Maxim I. Well-posedness in linear infinite optimization. *Parametric optimization and related topics, IV* (Enschede, 1995), 111–121, *Approx. Optim.*, 9, Lang, Frankfurt am Main, 1997.
66. Georgiev, Pando Gr., ; Zlateva, Nadia P., Second-order subdifferentials of $C^{1,1}$ functions and optimality conditions. *Set-Valued Anal.* 4 (1996), no. 2, 101–117.

67. Georgiev, P.; Kutzarova, D.; Maaden, A. On the smooth drop property. *Nonlinear Anal.* 26 (1996), no. 3, 595–602.
68. Georgiev, P. G.; Zlateva, N. P., Second subdifferentials of $C^{1,1}$ functions: optimality conditions and well posedness. *Compt. Rend. Acad. Bulg. Sci.* 46 (1993), no. 11, 25–28 (1994).
69. Georgiev, P. Gr., Approximation of convex bodies in R^m by polytopes. *Compt. Rend. Acad. Bulg. Sci.* 46 (1993), no. 9, 29–31 (1994).
70. Georgiev, Pando Gr., On the residuality of the set of norms having Mazur’s intersection property. *Math. Balkanica (N.S.)* 5 (1991), no. 1, 20–26.
71. Georgiev, Pando Gr., The smooth variational principle and generic differentiability. *Bull. Austral. Math. Soc.* 43 (1991), no. 1, 169–175.
72. Georgiev, P. Gr., Fréchet differentiability of convex functions in separable Banach spaces. *Compt. Rend. Acad. Bulg. Sci.* 43 (1990), no. 9, 13–15.
73. Georgiev, P. Gr., Uniqueness of the alternating points of the linear and convex Chebyshev approximation. *Compt. Rend. Acad. Bulg. Sci.* 42 (1989), no. 9, 21–22.
74. Georgiev, Pando Grigorov Mazur’s intersection property and a Kreĭn- Milman type theorem for almost all closed, convex and bounded subsets of a Banach space. *Proc. Amer. Math. Soc.* 104 (1988), no. 1, 157–164.
75. Georgiev, Pando Grigorov The strong Ekeland variational principle, the strong drop theorem and applications. *J. Math. Anal. Appl.* 131 (1988), no. 1, 1–21.
76. Georgiev, Pando G., A counterexample from the approximation of plane convex compacta by inscribed polygons. *Mathematics and mathematical education (Sunny Beach (Slunchev Bryag), 1986)*, 196–201, Publ. House Bulgar. Acad. Sci., Sofia, 1986.
77. Georgiev, P. G., Strengthened forms of Ekeland’s variational principle, of the drop theorem, and some applications. *Compt. Rend. Acad. Bulg. Sci.* 39 (1986), no. 8, 15–18.
78. Georgiev, Pando G., Almost all convex, closed and bounded subsets of a Banach space are dentable. *Mathematics and mathematical education (Sunny Beach (Slunchev Bryag), 1985)*, 355–361, Bulgar. Akad. Nauk, Sofia, 1985.
79. Georgiev, Pando G., Approximation of convex n -gons by $(n - 1)$ -gons. *(Bulgarian) Mathematics and mathematical education (Sunny Beach, 1984)*, 289–303, Bulgar. Akad. Nauk, Sofia, 1984.

Conference papers:

80. M. N. Syed, P. Georgiev, P. Pardalos, *Seizure Manifold of the Epileptic Brain: A State Space Reconstruction Approach*, Proc. BIOMAT2012 conf. (to appear).
81. P. G. Georgiev, P. Xanthopoulos, M.R. Guarracino, P. M. Pardalos, *Subspace Classifiers*, Proceedings of the 5-th INFORMS Workshop on Data Mining and Health Informatics (DM-HI 2010), D. Sundaramoorthi, M. Lavieri, H. Zhao, eds.

82. Pando Georgiev, Anca Ralescu, Dan Ralescu, "Fuzzy Subspace Clustering Algorithm and Applications to Blind Signal Separation", Proc. World Congress on Computational Intelligence, Vancouver, 2006.
83. Pando Georgiev, Anca Ralescu, "Clustering on Subspaces and Sparse Representation of Signals", in Proc. 2005 IEEE International 48th Midwest Symposium on Circuits and Systems, August 7-10, 2005, Cincinnati, USA, pp. 1843-1846.
84. P. Georgiev, F. Theis and A. Ralescu, "Sparse Representations of Data and Support Vector Machines", Proc. of 10-th Intern. Conf. on Information Processing and Management of Uncertainty in Knowledge-Based Systems, July 4-9, 2004, Perugia, Italy (IPMU 2004), pp.2109 – 2116.
85. P. G. Georgiev, F. J. Theis, and A. Cichocki, "Blind source separation and sparse component analysis of overcomplete mixtures," in Proceedings of International Conference on Acoustics, Speech, and Signal Processing (ICASSP2004), vol. V, (Montreal, Canada), pp. 493-496, IEEE Signal Processing Society, IEEE, May 2004.
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