A. Rubinov - List of Publications

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    New types of Lagrange and penalty functions are introduced and studied; both theoretically and numerically.

    Group/Cluster: Mathematical and Statistical Analysis Research Group (MASARG)

    Project Leader: Professor Alex Rubinov

    CIAO members involved in project:

    * Prof Alex Rubinov * Mr Jason Giri * Dr Nadejda Soukhoroukova * Mr Julien Ugon

    Commencement date: 2003

    Proposed completion date: 2006

    Actual completion date: 2006 205 -221.

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5 *Conference papers*

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7 Accepted papers

1. J.S. Giri and A.M. Rubinov, Some non-linear Lagrange and penalty functions for problems with a single constraints, to appear, Kluwer volume.

2. H. Mohebi and A.M. Rubinov, Best approximation by downward sets with applications, to appear *Analysis in Theory and Applications*

3. A. Rubinov, N. Soukhoroukova and J. Ugon, Clusters and classes in data analysis, to appear *EJOR*.

4. G. Adilov and A.M. Rubinov, B-convex sets and functions, *Numerical Functional Analysis and Optimization*, to appear

5. G. P. Crespi, I. Ginchev, M. Rocco, A.M. Rubinov, Convex along lines functions and abstract convexity, to appear *Journal of Convex Analysis*

6. A.M. Rubinov, Z.Y. Wu, Optimality conditions in global optimization and their applications, Mathematical Programming, Series B, to appear.

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9. V. Jeyakumar, A.M. Rubinov and Z. Y. Wu,Sufficient Global Optimality Conditions for Non-convex Quadratic Minimization Problems with Box Constraints, to appear, JOGO

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12. V. Jeyakumar, A.M. Rubinov and Z. Y. Wu, Generalized Fenchel's Conjugation Formulas and Duality for Abstract Convex Functions, to appear, JOTA, Vol. 132, No. 1, January 2007.

13. A.M Rubinov, Methods for global optimization of nonsmooth functions with applications, to appear, *Applied and Computational mathematics*

8 Submitted papers

1. L. Clemow, M.Hannah, M. Mammadov, D. Nash, A. M. Rubinov, J. Ugon, J. Yearwood, Feature Ordering for Small Datasets, submitted paper.

2. A. M. Bagirov, A. M. Rubinov and Jiapu Zhang, A new multidimensional descent method for global optimization, submitted to COAP

3. V. Jeyakumar, A.M. Rubinov and Z. Y. Wu, Non-convex Quadratic Minimization Problems with Quadratic Constraints: Global Optimality Conditions, submitted to *Mathematical Programming*

4. R. S Burachik and A. M. Rubinov, Abstract convexity and Augmented Lagrangians, submitted paper

5. R.S. Burachik and A.M. Rubinov, On the use of abstract convexity in set-valued analysis, submitted to *Set-valued Analysis*

6. D.M. Morales Silva, A.M. Rubinov, and W.D.M. SOSA, G-coupling functions, submitted to *Optimization.*

7. A.M. Rubinov, Z.Y. Wu, Necessary global optimality conditions for quadratic optimization problems, submitted to *Opt. letters*

8. A.M. Rubinov, Z.Y. Wu, Global optimality conditions for a class of optimization problems, Submitted paper.