

IVAN GANCHEV IVANOV

Publications in the last five years in the field of the applied and computational mathematics

1. **I.Ivanov**, *An Improved Method for Solving a System of Discrete-Time Generalized Riccati Equations*, Journal of Numerical Mathematics and Stochastics, vol . 3 (1) : 57-70, 2011, <http://www.jnmas.org/jnmas3-7.pdf>
2. Dragan, **I. Ivanov**, *A numerical procedure to compute the stabilising solution of game theoretic Riccati equations of stochastic control*, International Journal of Control, vol. 84 (4), 783 – 800, 2011, <http://www.informaworld.com/smpp/content~db=all?content=10.1080/00207179.2011.578261>
3. V.Dragan, **I. Ivanov**, *Computation of the stabilizing solution of game theoretic Riccati equation arising in stochastic H_{∞} control problems*, Numerical Algorithms, Vol. 57 (3), 357-375, 2011, <http://www.springerlink.com/content/a93233v02k41434n/>
4. **I.Ivanov**, R.Rusinova, B.Lomev, *Accelerated Iterations for Finding the Soft-constrained Stochastic Nash Games Equilibrium*, American Institute of Physics, vol.1301, 97-106, 2010.
5. **I.Ivanov**, *Stein Iterations for the Copuled Discrete-Time Riccati Equations*, Nonlinear Analysis Series A: Theory, Methods & Applications, [doi:10.1016/j.na.2009.06.025](https://doi.org/10.1016/j.na.2009.06.025) , 71:6244-6253, 2009. **impact factor 2009:1.487.**
6. **I.Ivanov**, *Numerical Solution of the Discrete-Time Coupled Algebraic Riccati Equations*, Lecture Notes in Computer Science, Numerical Analysis and its Applications, vol. 5434, 314-322, 2009, ISBN 978-3-642-00463-6.
7. V.Dragan, **I. Ivanov**, *A numerical procedure to compute the stabilizing solution of game theoretic Riccati equations of stochastic control*, Preprint 14/2009, Institute of Mathematics "Simion Stoilow" of the Romanian Academy.
8. **I.Ivanov**, R.Rusinova, *Numerical Solvers for Generalized Algebraic Riccati Equations*, American Institute of Physics, 2009, CPI186, 343-351.
9. **I.Ivanov**, B.Lomev, *Equilibrium in stochastic Nash games with state-dependent noise via Lyapunov-type iterations*, The 9th Hellenic European Research on Computer Mathematics & its Applications Conference, Athens, 2009, HERMIS Journal, Volume 11, 2009, ON-LINE, ISSN: 1108-7609, <http://www.aueb.gr/pympe/hermis/hermis-volume-11/>

10. **I.Ivanov**, *A method to solve the discrete-time coupled algebraic Riccati equations*, Applied Mathematics and Computation, 26(2008), 34-41. **impact factor 2008:0.961.**
11. **I.Ivanov**, *On some iterations for optimal control of jump linear equations*, Nonlinear Analysis Series A: Theory, Methods & Applications, 69(11):4012-4024, 2008. **impact factor 2008:1.295**
12. **I.Ivanov**, *Numerical Solution of the Discrete-Time Coupled Algebraic Riccati Equations*, Lecture Notes in Computer Science, Springer Berlin / Heidelberg, vol. 5434/2009, ISBN 978-3-642-00463-6, 4th International Conference, NAA 2008, Lozenetz, Bulgaria, June 16-20, 2008, page 314-321.
13. **I.Ivanov**, *Properties of Stein (Lyapunov) Iterations for Solving a General Riccati Equation*, Nonlinear Analysis Series A: Theory, Methods & Applications, 67:1155-1166, 2007 . **impact factor 2007:1.097**
14. **I.Ivanov**, *Iterations for Solving a Rational Riccati Equation Arising in Stochastic Control*, Computers and Mathematics with Applications, 53:977-988, 2007. **impact factor 2007:0.72**
15. **I.Ivanov**, *On the matrix equation $X = Q - S^* X^+ S$* , Numerical Functional Analysis and Optimization, 28(3-4):353-365, 2007. **impact factor 2006:0.405**
16. **I.Ivanov**, *Algorithms for solving two types systems of Riccati equations*, Proceedings of Fourth International Conference FDM : Theory and Applications, Bulgaria, p.209-214, 2006.
17. **I.Ivanov**, *Properties of the Lyapunov iteration for coupled Riccati equations in jump linear systems*, Sixth International Conference on Numerical Methods and Applications, Borovetz, 2006, LNCS 4310, Springer-Verlag, Berlin, 599-606, 2007.
18. **I.Ivanov**, *On Positive Definite Solutions of the Family of Matrix Equations $X + A^* X^{-1} A = Q$* , Journal of Computational and Applied Mathematics, 193:277-301, 2006. **impact factor 2006:0.759**
19. V.Hasanov, **I.Ivanov**, *On two Perturbation Estimates of the Extreme Solutions to the Equations $X \pm A^* X^{-1} A = Q$* , Linear Algebra and Appl., 413:81-92, 2006. **impact factor 2006:0.585**
20. **I.Ivanov**, V.Hasanov, F.Uhlig, *Improved Methods and Starting Values to Solve the Matrix Equations $X \pm A^* X^{-1} A = I$ Iteratively*, Mathematics of Computation, 74:263-278, 2005. **impact factor 2005:0.853**
21. V.Hasanov, **I.Ivanov**, *On the Matrix Equation $X - A^* X^{-1} A = I$* , Applied Mathematics Computation, 168:1340-1356, 2005. **impact factor 2005:0.688.**
22. **I.Ivanov**, *Perturbation Analysis for Solutions of $X \pm A^* X^{-n} A = Q$* , Linear Algebra and Appl., 395:313-331, 2005. **impact factor 2005:0.59.**