Iterative mthods for computing the Nash equilibrium for positive systems with two players

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We consider the linear quadratic differential games for positive systems with two players. Based on the established Newton method in [1] we modify and consider new iterations for computing the stabilizing solution of the associated coupled set of Riccati equations. Convergence properties are fully investigated in [2, 3]. Computer realizations of the presented iterative methods are numerically compared. Comparing the results from the experiments the main conclusion is the modified iterations faster than the Newton method.

References

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