

TECHNICAL NOTE

On the Probability of Existence of Pure Equilibria in Matrix Games

G. P. PAPAVALLOPOULOS¹

Abstract. Previous work related to Ref. 1, not known to the author, is reported.

Key Words. Matrix games, pure equilibria, mixed equilibria.

In a paper that recently appeared in this journal (Ref. 1), we studied the probability that a randomly chosen matrix game admits pure equilibria as well as the impact on it of the number of players and the number of actions available to them. In our own bibliographical research and inquiries to colleagues, we were not successful in locating previous work on this topic. We had included at the end of our introduction a note to the reader asking to communicate to us related results. As it turned out, it is a topic that has been studied before. Professor Marco LiCalzi, of the Department of Applied Mathematics at the University of Venice (Italy), informed us of Refs. 2-5. Professor LiCalzi has also obtained similar results independently (Ref. 6). In light of these new-to-us references, we can certainly say that most of the material of Ref. 1 is subsumed in these works, in particular Refs. 3 and 4. Thus, although our research was done independently, the credit for originally posing and resolving the problem should go there. We take this opportunity to thank Professor LiCalzi for bringing these previous papers to our attention.

References

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¹Professor, University of Southern California, Department of Electrical Engineering Systems, Los Angeles, California.

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