

# AXELROD FIRST TOURNAMENT: EXAMINING CERTAINTY VERSUS UNCERTAINTY ABOUT THE END STAGE IN REPEATED GAMES

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Please cite this article as:

Milencianu, M. and Pop, G.M., 2023. Axelrod First Tournament: examining certainty versus uncertainty about the end stage in repeated games. *Review of Economic Studies and Research Virgil Madgearu*, 16(1), pp.57-73.  
doi: 10.24193/RVM.2023.16.99.

Article History:

Received: 10 May 2023  
Accepted: 20 June 2023

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**Abstract:** We use the Axelrod library for Monte Carlo simulations with agents of the First Generation, such that more uncertainty is introduced about the time-span and we compare the results of tournaments with fixed known number of stages versus uncertainty about the number of stages. We constructed a descriptive method by which we can highlight (from any extended list of agents, not only the First Generation) those agents that seem to have a different behaviour in repeated games with certainty about the number of stages, compared to an environment of repeated games with uncertainty about the end of the game. Piloting this descriptive method on 15 agents of the First Generation of the Axelrod Tournament, we arrive to a short list of (highlighted/selected) agents. The qualitative analysis of their algorithms led us to the conclusion that unfortunately they also 'act' purely mechanically from the point of view of time-span understanding.

**Key words:** Prisoner's Dilemma; repeated games; Axelrod Tournament; uncertainty about the number of stages; Monte Carlo simulations

**JEL Classification:** C70; C73 ; C79

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