

Derivative-free Equilibrium Seeking in Multi-Agent Systems

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Propositions

accompanying the dissertation

DERIVATIVE-FREE EQUILIBRIUM SEEKING IN MULTI-AGENT SYSTEMS

by

Suad KRILAŠEVIĆ

1. Nash equilibrium seeking algorithms, based on cost-measurement, are a powerful tool in scenarios where the entire system is conceived and managed by a single decision-maker, while in scenarios with multiple decision-makers their usefulness is marginal. [This proposition pertains this dissertation.]
2. Interaction between different equilibrium seeking algorithms has not received as much research attention as it deserves, even though it is potentially a huge hurdle in the future implementation of these algorithms in noncooperative settings. [This proposition pertains this dissertation.]
3. Learning is often more profound from examples of failure than examples of success. Thus, academia should be more accepting towards works with negative results.
4. If developed countries want to help developing countries develop, they should stop poaching their top talent.
5. The best conferences should be organized in well-connected and affordable locations.
6. Educational systems should be designed to make all citizens reasonably knowledgeable about all aspects of governance. Otherwise, representative democracies will always be plagued by issues of populism.
7. We have been using the same democratic systems for centuries without any proof that they are indeed optimal models of governance. We should experiment more with other forms of democracies, especially considering all the technological breakthroughs, in hope to improve the human civilization.
8. We should stop hoping that future technologies will stop climate change and use existing ones to do so.
9. To solve current major global problems, we cannot wait for the "invisible hand" of the free market to find a solution.
10. In the future, there will be more planned economies than free market ones

These propositions are regarded as opposable and defensible, and have been approved as such by the promoters prof. dr. S. Grammatico, prof. dr. ir. B. De Schutter.