

MSc thesis defense presentation

Efstratios-Panteleimon Skoulakis

defends his MSc thesis

Date:	Monday, 31 Oct 2016
Time:	18:30
Location:	School of Electrical and Computer Engineering (old buildings), 1.1.31
Thesis title:	Opinion Dynamics with Local Interactions
Committee:	<ul style="list-style-type: none">• Dimitris Fotakis• Aristeidis T. Pagourtzis• Efsthios Zachos

Thesis abstract

We study convergence properties of opinion dynamics with local interactions and limited information exchange. We adopt a general model where the agents update their opinions in rounds to a weighted average of the opinions in their neighborhoods. For fixed neighborhoods, we present a simple randomized protocol that converges in expectation to the stable state of the Friedkin-Johnsen model. For opinion-dependent neighborhoods, we show that the Hegselmann-Krause model converges to a stable state if each agent's neighborhood is restricted either to a subset of her acquaintances or to a small random subset of agents. Our experimental findings indicate that for a wide range of parameters, the convergence time and the number of opinion clusters of the neighborhood-restricted variants are comparable to those of the standard Hegselmann-Krause model.

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