

# MSc thesis defense presentation

## Efstratios-Panteleimon Skoulakis

### defends his MSc thesis

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

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### 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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