

# MSc thesis defense presentation

## Lydia Zakynthinou defends her MSc thesis.

<b>Date:</b>	Wednesday, 15 Nov 2017
<b>Time:</b>	17:30
<b>Location:</b>	School of Electrical and Computer Engineering (old buildings), room 1.1.29
<b>Thesis title:</b>	<a href="#">Online Facility Location with Switching Costs</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="#">Efstathios Zachos</a></li></ul>

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### Thesis abstract

Online decision making is a large research area whose literature includes many different aspects and approaches. The problems it studies are based on the following setting: there is a decision-maker who has to make a decision iteratively with no knowledge of the future and receive the cost of their decision in each round. The goal is to perform well over time. Depending on the definition of what consists of a good performance and on the assumptions made, different kinds of problems occur. A particularly interesting benchmark which captures many real life problems where the environment changes over time, is a solution which balances the trade-off between the optimal costs in each round and its stability. Online learning and competitive analysis are two frameworks which study problems in this setting. In this thesis we will discuss the differences between these two frameworks, the efforts to unify them and finally we will demonstrate how such a unifying approach can give a good approximation algorithm for the online facility location problem with switching costs, which falls into this general setting.

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