



## Webinar

**Vincenzo Denicolò (University of Bologna and CEPR)**

***“Artificial intelligence, algorithmic pricing and collusion”***

**Tuesday 7 May 2019**

**14:00 Athens time**

The **TECHNIS** research group in association with the BENETeC Laboratory at **UCRC** (University of Crete Research Center for the Humanities, the Social and Education Sciences) are pleased to invite you to a free webinar on Tuesday, 7 May 2019 at 12:00 London time (i.e. 13:00 Brussels time, 14:00 Athens time).

The speaker is **Vincenzo Denicolò**, Professor of Economics at the University of Bologna, and a Research Fellow at CEPR. The title of the talk is **“Artificial intelligence, algorithmic pricing and collusion”**.

The moderator will be **Dr. Andreas Panagopoulos**, Assistant Professor at the Department of Economics, University of Crete. More information can be found at <http://technisnet.org/current%20seminars.html>.

This webinar is free and open to all. To participate and for further information, please contact **Dr. Andreas Panagopoulos** *at least a day prior to the seminar*. The program used to deliver webinars is called VSee and you can easily download it for free. A very short demo of VSee can be found at <https://www.youtube.com/watch?v=nDb7-MrzOL4>.

**Abstract:** Increasingly, pricing algorithms are supplanting human decision making in real marketplaces. To inform the competition policy debate on the possible consequences of this development, we conduct an experimental study of pricing algorithms powered by Artificial Intelligence (Q-learning) in a workhorse oligopoly model of price competition with logit demand and constant marginal costs. We find that the algorithms consistently learn to charge supra-competitive prices, without communicating with one another and without having been instructed to do so. The high prices are sustained by classical collusive strategies with a finite phase of punishment followed by a gradual return to cooperation. This finding is robust to asymmetries in cost or demand, changes in the number of players, and various forms of uncertainty.