

*The Hong Kong Polytechnic University  
Department of Logistics and Maritime Studies  
Online Research Seminar*

**Competition in Congested Service Networks  
with Application to Air Traffic Control Provision in Europe**

by

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**Date: 29 April 2020 (Wednesday)  
Time: 5:00pm - 6:00pm HKT  
Online Session in [Blackboard\\*](#): Research Seminar by Prof. Nicole ADLER**

**If you are interested to attend the captioned seminar, please register at the link (<https://polyu.hk/BNNZC>) by 24 April 2020 5pm HKT.**

**(Conducted in English)**

**Abstract:**

We analyze how a network based market impacts competition, equilibrium charges and efficiency. We find that congested networks served by oligopolistic firms within a supply chain may be more cost efficient and offer lower prices under horizontal integration as compared to the competitive outcome. Furthermore, if a government is interested in encouraging technology adoption in order to increase capacity, this requires either hybrid price caps or vertical integration in order to share both the costs and benefits. The model is subsequently illustrated with a case study on air traffic control provision in Western Europe, in which it is shown that substantial changes in the regulation are required in order to create a more cost efficient sector with increased capacity.

**Bio:**

Nicole Adler is a professor and head of the Department of Operations Research and Operations Management at the School of Business Administration of Hebrew University in Jerusalem. Her major research interests include game theory and productivity estimation applied to the field of transportation. Her work has analysed hub-and-spoke airline competition and mergers, public service obligation tenders, airport productivity and recently, she has utilised game theoretic concepts in order to understand air traffic control markets. Nicole is currently an associate editor for *Transportation Research part B: Methodological*.

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**All are welcome!**