

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

**A Series of Studies on Air Transport Congestion Management Policies**

by

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**Date: 27 February 2018 (Tuesday)**  
**Time: 4:00pm-5:00pm**  
**Venue: R402, Shirley Chan Building**  
**The Hong Kong Polytechnic University**

**(Conducted in English)**

**Abstract:**

The air transport congestion management policies are studied and evaluated in three steps. In the first study, we consider a three-city network of perfectly complementary airports, where local governments independently choose between pricing and slot policies to manage own congestion with the objectives of either maximizing own consumer surplus or own welfare. To compare pricing with slot policies, we develop the notion of "inverse slot quantities" which represent the airport charges that would have to be used to implement a given slot quantity. Slots are weakly dominant strategies in the first case, while pricing policies are weakly dominant strategies in the second case. We further show that the equilibrium prices are too high in the case of congestion pricing and that the equilibrium inverse slot quantities are too low both relative to the first-best prices. In the second study, we investigate the same network where air services are imperfect substitutes. We show that, under these conditions, slots policies can lead to the first-best outcome, while equilibrium congestion prices are still excessive from the social viewpoint. The third study investigates the airports' capacity choices conditional on slot policies.

**Bio:**

LANG Hao is currently a PhD student under the supervision of Dr. CZERNY, Achim I.. His research interests are air transport economics and city logistics.

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**All are welcome!**