# Airport Slot Allocation Problems[*]

Ken C. Ho[†]
(Job Market Paper)

Alexander Rodivilov[‡]

October 1, 2017

(please click here for the latest version)

## Abstract

We study airport slot allocation problems during weather-induced congestion. These real-life matching problems are important to airlines as the costs of delays are significant compared to their profits. We introduce a new mechanism, Multiple Trading Cycles (MTC), to allocate landing slots. In contrast to the currently used mechanism, MTC is individually rational, Pareto efficient, strategy-proof, non-manipulable by postponing a flight cancellation, and respects property rights over slots. In addition, it is core-selecting when preferences are strict. The "You Request My House - I Get Your Turn" mechanism (**?**) is a special case of MTC.

*JEL*: C78, D47, D82, L93, L98, P14, R41.

*Keywords*: Slot allocation, Strategy-proofness, Mechanism design, Top Trading Cycles