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AGCO Seminar

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Title

Negative Prices in Stackelberg Network Pricing Games.

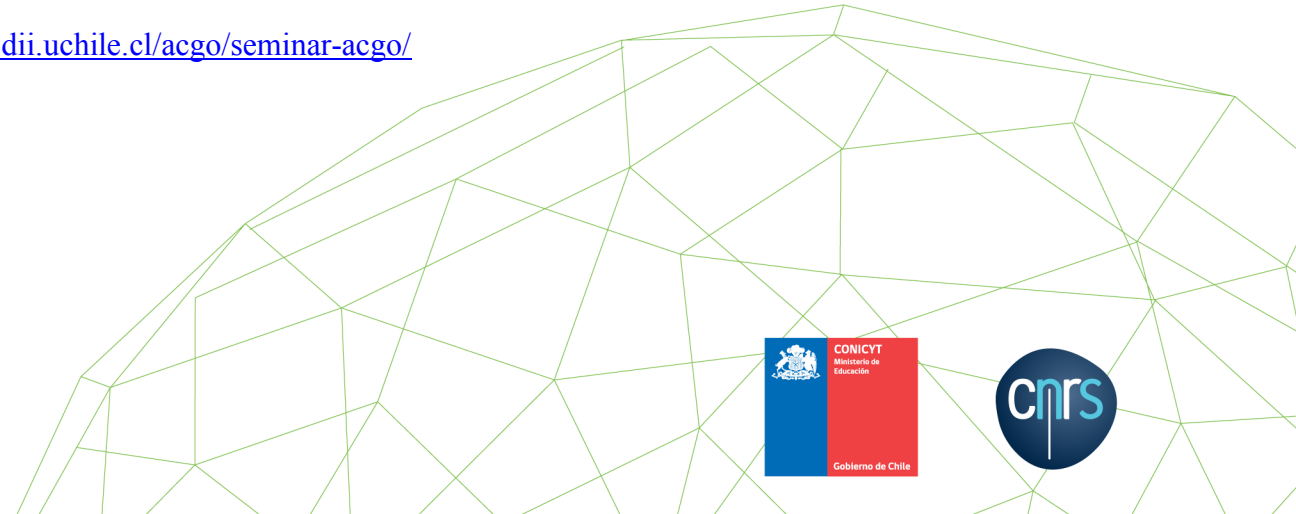
Abstract: A Stackelberg network pricing game is a two-stage game, in which, in the first stage, a leader sets prices/tolls for a subset of edges so as to maximize profit (all other edges have a fixed cost), and, in the second stage, one or multiple followers choose a shortest path from their source to sink. Labbé et al. (1998) showed that finding optimal prices with lower bounds is NP-hard and gave an example in which profit is maximized by using negative prices. We explore this last phenomena and study the following two questions already posted in an open problem session of the AGCO Seminar. First, for which network topologies can the leader increase profit by using negative prices? Second, how much more profit can the leader realize by setting negative prices? During this talk we will answer these two questions for the single follower setting and partly for the multiple followers setting. If time permits we will also discuss the problem in a more general strategy space for the follower.

This is joint work with Marc Schröder.

Where: Republica 701, Sala 33.

When: Wednesday, June 06, 14:30 hrs. .

http://www.dii.uchile.cl/acgo/seminar-acgo/



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