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## Non-Cooperative Game in Overbooking Problem

Contributed abstract .

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### Abstract

We present a game theoretic analysis in a competitive overbooking model. Each firm with constrained resource chooses a limit to maximize its expected profit, given the other firm's optimal limit. Sufficient conditions for existence and uniqueness of Nash equilibrium are derived. Our comparative statics analysis reveals that the equilibrium increases as a revenue-to-oversale ratio increases or a show-up rate decreases. Nevertheless, the equilibrium is not affected by a distribution of requests. Moreover, the limits in the competitive model are identical to those in the non-competitive model.

### Keywords

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