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A CONDITION FOR REDUCING EXPANSIVE VARIATIONS OF OPTIMAL POLICY IN RESTAURANT REVENUE MANAGEMENT

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Abstract. An industry which is recently applied to revenue management is restaurant. The revenue management for restaurant is called *restaurant revenue management*. The restaurant revenue management has a problem by which state space enormously expands because of multi-dimensional resources and customers. This problem gives rise to some practical difficulty: computation complexity increases, required data size for optimal policy becomes larger and etc.. This paper presents a sufficient condition for substantially reducing data size of optimal policy.

Key words and phrases. Revenue management, Network revenue management, Restaurant revenue management, Bid price control, Dynamic programming, Monotonicity.