# Analysis of G-queue with Markovian arrival process with marked transitions as an arrival process

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## Abstract

There is an extensive body of research on the queue with negative customers, called G-queue and their applications. The typical models of the system with negative customers have assumed that the arrivals of positive customers and negative customers are independent. However, in many applications, it might be more appropriate to assume dependence between positive and negative arrivals.

In this talk we discuss modeling issues for the queue with three types of customers; ordinary customers, negative customers and disasters which are correlated by using Markovian arrival process with marked transitions (MMAP) and present the recent results.

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