A MARKOVIAN SINGLE SERVER QUEUEING SYSTEM WITH ARRIVALS DISCOURAGED BY QUEUE LENGTH

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ABSTRACT

We study the queueing system where every customer on arrival makes one of the possible decisions either to join the queue or to go away without taking service never to return. Assuming such a decision to be entirely governed by the queue size at the instant of customer arrival, the transient solution is obtained analytically using the iteration method for a state dependent birth-death queue in which potential customers.

KEYWORDS: State Dependent Queues, Birth- Death Models, Transient State