

RENEGING IN QUEUES WITHOUT WAITING SPACE

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ABSTRACT

Reneging involves the phenomenon of customers joining a queuing system but departing without completely receiving service. There are situations where customers begin receiving service but disengage before service completion. Emergency patients attended by critical care professionals are of such type. This paper deals with the analysis of Markovian finite buffer queuing system without any waiting space under the assumption that customers may disengage i.e. renege before the completion of service. Explicit results for this model are presented. A few fresh performance measures have been suggested. A numerical example with design implications rounds up the paper.

KEYWORDS: Queuing, Reneging, Finite Buffer, Customer Impatience, Patience Time