

BUSY PERIOD ANALYSIS OF A MARKOVIAN FEEDBACK QUEUEING MODEL

WITH SERVERS HAVING UNEQUAL SERVICE RATE

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ABSTRACT

This paper studies a feedback queueing system with two parallel servers having different service rates. Arrivals follow Poisson distribution. Service times for both the servers are exponentially distributed. Busy period distribution for this system is obtained using generating function technique. A few special cases of interest are also derived. Results are illustrated with numerical examples and compared graphically.

KEYWORDS: Busy Period, Feedback, Numerical Solution, Probability, Queueing, Server