

Akinsete, A. A. (2001). Performance evaluation of tandem queues in parallel. *Italian Journal of Pure and Applied Mathematics*. **10**, 191-198. MR1930326 (2003i:60157)

**Abstract:**

A queueing network consisting of two subsystems in parallel is discussed. Each subsystem consists of two infinite capacity queues. The output from one queue forms the input into any of the queues ahead, with allowance to withdraw or cross over. Input into the system is through the leading channels with inter-arrival times having memoryless distributions, and departure from the system having a Poisson distribution. The distribution of the system size at equilibrium is sought. The system's performance is evaluated by comparing it with a classical network where cross over and withdrawal are not allowed. Queue discipline in both networks is FCFS.