

Tursunov G. T. (Tashkent, Uzbekistan) — **Asymptotic behavior generalized renewal random processes in a queueing system M/G/1 with semi – Markovian input.**

Consider single server queueing system with Poisson arrivals. The service time has an arbitrary distribution law. In queueing system arrivals customers of m different types which form a homogeneous Markov chain. Equations for the moments of increments and the regeneration period of generalized renewal random processes are compiled, conditions for the existence of their solutions are obtained and limit theorems in the series scheme on the weak convergence of continuous functionals in the uniform topology from these random processes are proved.