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Queueing Networks with Batch Movements of Customers, Blocking and Clusters

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Two types queueing networks with batch movements of customers — networks with blocking and networks with clusters are investigated. Product form stationary distribution for networks with blocking of transitions in states, in which the number of customers in queueing systems exceeds given values, is derived. For queueing networks with disjoint clusters of systems the problem of analyzing is solved and the product form stationary distribution is found. Examples of analysis of the network with blocking and the network with clusters are presented.

Key words: queueing networks, batch movements of customers, blocking, clusters, analysis of queueing networks.

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