



Mathematics > Probability

Stochastic Service Systems, Random Interval Graphs and Search Algorithms

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We consider several stochastic service systems, and study the asymptotic behavior of the moments of various quantities that have application to models for random interval graphs and algorithms for searching for an idle server or empty waiting station. In two cases the moments turn out to involve Lambert series for the generating functions for the sums of powers of divisors of positive integers. For these cases we are able to obtain complete asymptotic expansions for the moments of the quantities in question.

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