

Estimation of Traffic Matrices for LRD traffic

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Abstract

The estimation of traffic matrices in a communications network on the basis of a set of traffic measurements on the network links is a well known problem, for which a number of solutions have been proposed when the traffic does not show dependence over time, as in the case of the Poisson process. However, extensive measurements campaigns conducted on IP networks have shown that the traffic exhibits long range dependence. Here two methods are proposed for the estimation of traffic matrices in the case of long range dependence, their asymptotic properties are studied, and their relative merits are compared.