Lasse Leskelä: *Stabilization of an overloaded queueing network using measurement-based admission control*; Helsinki University of Technology Institute of Mathematics Research Reports A470 (2004).

Abstract: *Admission control is often employed to avoid congestion in queueing networks subject to overload. In distributed networks the admission decisions must usually be based on imperfect measurements on the network state. We will study how this lack of complete state information affects the system performance by considering a simple network model for distributed admission control. In this paper we will characterize the stability region of the network and show how the presence of feedback makes the stability of the system very sensitive to its parameters.*

AMS subject classifications: 60K25, 68M20, 90B15, 90B22

Keywords: queueing network; admission control; stability; overload; perturbed Markov process

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