



Hamilton Institute

Queues in Series, Combinatorial Correspondences, and Determinants

Dr. Ton Dieker

Boole Centre for Research in Informatics, UCC

Wednesday, March 28th, 2007

Abstract

Product forms for Jackson networks constitute a cornerstone of queueing theory. To obtain product forms, it is essential to consider the system on the long run (in steady state). This leaves an important question unanswered: how does the system behave before it reaches steady state?

This talk attempts to answer this question by giving on a full description of the system dynamics, which is often referred to as time-dependent or transient behavior. We consider the simplest Jackson network, queues in series. A main tool is a combinatorial correspondence ascribed to Robinson, Schensted, and Knuth, of which I will discuss some remarkable consequences. Determinants of matrices play a pivotal role in the resulting system description.

Venue: Seminar Room, Hamilton Institute, Rye Hall,
NUI Maynooth

Time: 1.00 - 2.00pm (followed by tea/coffee)

Travel directions are available at www.hamilton.ie



CC Ireland Chapter