Meeting: 1005, Newark, Delaware, SS 16A, Special Session on Probabilistic Paradigms in Combinatorics

Anthony Bonato* (abonato@rogers.com), Department of Mathematics, Wilfrid Laurier University, Waterloo, Ontario N2L 3C5, Canada. Massive scale-free networks and infinite graphs.

The web graph and other massive scale-free networks have attracted much recent research interest. Much of this research has focused on the design and analysis of evolving stochastic models.

Modelling large finite systems as infinite is accepted practice in many disciplines. For instance, physicists investigate infinite lattices, while economists work with the continuum economy. What properties do the infinite limits of graphs generated by models of massive networks possess? We will consider this question for the *copying model* of Kumar et al. and the *duplication model* of Chung et al., where new nodes duplicate (with some error) the link structure of existing nodes.

This is joint work with Peter Cameron and Jeannette Janssen. (Received January 27, 2005)