

Malwina Luczak (London School of Economics and Political Science, UK)

*Concentration of measure for degrees of vertices in web graphs.*

ABSTRACT: A very general model of evolving graphs was introduced by Cooper and Frieze in 2003, and further analysed by Cooper. At each stage of the process, either a new edge is added between existing vertices, or a new vertex is added and joined to some number of existing vertices. Each vertex gaining a new neighbour may be chosen either uniformly, or by preferential attachment, i.e., with probability proportional to the current degree.

It is known that the degrees of vertices in any such model follow a “power law”. Here we study in detail the degree sequence of a graph obtained from such a procedure, looking at the vertices of large degree as well as the numbers of vertices of each fixed degree.

This is joint work with Graham Brightwell.