

Speaker

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Title

Asymptotic probability of connected labeled objects and virtual species

Abstract

There is a number of combinatorial structures that admit a notion of connectivity, including graphs as the most commonly used example. We are interested in the probability that a random labeled object is connected, as its size tends to infinity. We will show that the asymptotics for these probabilities can be obtained in a common manner and that asymptotic coefficients have a combinatorial meaning in terms of virtual species. Moreover, we will show how to get the asymptotic probability that a random labeled object has a given number of connected components, and we will indicate the combinatorial meaning of the coefficients involved in the asymptotic expansions.

This is ongoing work joint with Thierry Monteil.