

Speaker

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Seminar

Seminar CALIN

Location and Date

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Title

Asymptotics for the probability of labeled objects to be irreducible

Abstract

There are a number of combinatorial structures that admit a notion of irreducibility in some sense, including connected graphs and surfaces, irreducible tournaments and indecomposable permutations. We are interested in the asymptotic behaviour of probability that a random labeled object is irreducible, as its size tends to infinity. It turns out, that, under some conditions, it is possible to obtain this asymptotics with the help of the symbolic method. Namely, it is so, when considered combinatorial class can be described as a set or a sequence of the corresponding irreducible class, and its counting sequence grows sufficiently fast. Moreover, the coefficients, involved in the asymptotic expansion, often are integers and have a combinatorial meaning.

This is ongoing work joint with Thierry Monteil.