

## **New results on Khintchine-Meinardus method for asymptotic enumeration of combinatorial structures**

Abstract The method in the title is aimed for asymptotic enumeration of combinatorial quantities given by a multiplicative generating function. In this talk we present asymptotic formulae obtained in [1],[2]. The main novelty of the result in [1] is the proof of the necessity of Meinardus conditions and Khintchine's normal local theorem. In [2] we extend the method to the case of two free parameters.

### **References**

1. B.Granovsky: Asymptotic enumeration by Khintchine- Meinardus probabilistic method: Necessary and sufficient conditions for sub exponential growth, The Ramanujan Journal (2018) 45:739-765.
2. B.Granovsky, D. Stark: Two parameter version of Khintchine -Meinardus method for asymptotic enumeration of the number of weighted partitions with a given number of parts.(in progress)