20th Workshop on Stochastic Geometry, Stereology and Image Analysis

2–7 June, 2019, Sandbjerg Estate, Denmark

Abstract

Viktor Beneš

# Limit theorems for Gibbs particle processes including facet processes

*Joint with Christoph Hofer-Temmel, Günter Last and Jakub Večeřa*

A stationary Gibbs particle process $\Xi$ in the Euclidean space, with deterministically bounded particles, defined in terms of higher-order potentials and an activity parameter, is studied. For small activity parameters, we can prove the mean value and variance asymptotics and the central limit theorem for admissible $U$-statistics of $\Xi$. An application of theoretical results to facet processes is presented.