Kateřina Helisová (Czech Technical University in Prague)

Similarity of realisations of random sets via approximation by unions of convex compact sets

Joint with Vesna Gotovac and Ivo Ugrina

The talk concerns a similarity measure of realisations of random sets through a heuristic based on approximation by unions of convex compact sets, evaluation of the support functions of the approximating sets and consequent usage of envelope tests and N-distances. The measure is used to distinguish between two realisations, more precisely to decide whether two given realisations come from the same underlying process when we have their pixel images. The suggested procedure is justified through simulation studies of common random models like Boolean model and Quermass-interaction processes with different parameters.