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Similarity of realisations of random sets via their morphological skeletons

Joint with Johan Debayle, Vesna Gotovac, Kateřina Helisová and Markéta Zikmundová

The talk concerns a method of assessing similarity of realisations of random sets based on construction of their morphological skeletons and consequent covering of the realisations by unions of discs with centres on the skeletons. Since the realisations are considered to be binary images, the skeletons together with the corresponding discs can be viewed as marked point processes with specific properties. Different functions for comparing such marked point processes are shown. The described procedure is illustrated on a simulation study with the aim to distinguish between realisations coming from different models.