

Stochastic and Integral Geometry II

Exercise Sheet 9

Please hand in your solutions at the end of the lecture on **Tuesday, June 26th**.

Exercise 1

Let X be a stationary Poisson process with intensity $\gamma > 0$. Show that the points of X are a.s. in general position, i.e if $k \in \{1, \dots, d+1\}$, $x_1, \dots, x_k \in X$, then $\dim(\text{aff}\{x_1, \dots, x_k\}) = k - 1$.

Exercise 2

Let X be a stationary point process with intensity γ . Show that the particle process which is induced by the corresponding Voronoi mosaic has also intensity γ .