

TASK 1: Introduction to Spatial Point Process

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The nest data from islet “nucli 23” is stored in *nucli23.txt*. Additionally, the coordinates of the islet are in *poly23.txt*.

1. Build a ppp object using the “poly23” data as a window.
2. Describe the point pattern process and its intensity.
3. Create a multi-type mark indicating the order of the nesting according to the nesting time.
 - Use the following time intervals: [10,16], [17,19], [20,22]
4. Describe the marked point process and its intensity.
5. Add to the analysis the height of the islet.
 - File *height_23.txt* contains the Kriging predictions of height in a 512×512 regular grid.
 - The coordinates of the grid are in *grid_height_23.txt* file.
 - Draw a plot showing together the points and the height of terrain.