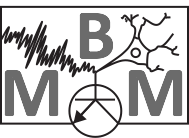
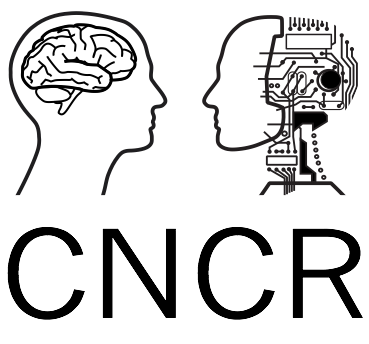
**M**ind, **B**rain, and **M**odels 2023



The Schelling model

**Tasks:**

1. **Insert comments in runSchelling.m (see canvas).** *(20% marks)*

The m-file contains comment lines with question marks (runSchelling() only). You should replace the question marks with your comments. The comments should not be longer than two lines (preferably one line) and no longer than 40 characters per line. The comments must explain the MatLab code between this line and the nearest line with hyphens on the same indent. In your explanations, you can assume that the user/reader has attended the lecture and read the handouts.

1. **Add a plausible decision rule for when an agent is “unhappy”.** *(20% marks)*
2. **Conduct a short study.**

The size of the grid should be the same across all simulations. You must choose two different levels of tolerance (low and high) and two different group sizes (equal sized and unequal sized). Your choice should lead to different types of results e.g., highly segregated, medium segregated, etc. The result should form the basis for a meaningful discussion in your report.

1. **Write a lab report on “Explorations of the effect of tolerance levels and group sizes on the level of segregation”.**

* Introduction-section (max 200 words, *20% marks*)

A brief introduction to agent-based modelling which relates ABM to the purpose of models set out in the first lectures of this module.

* Method section (max 100 word, *10% marks*):

Document and explain your choice of the parameter settings and the “unhappy”-rule.

* Results section (0 words, *10% marks*):

Four figures with captions using the output from calcSegregation() to report the results. The captions should comment on the level of the resulting segregation.

* Discussion-section (max 300 words, *20% marks*):

This section must discuss the implications of your results for our understanding of social segregation. This discussion should relate the results to known evidence about social segregation. You do not need to conduct a thorough literature review. You can use Wikipedia as source. You need to reference your sources in the report, which do not add to the word count.

1. **Submit the following two files**:

* the runSchelling.m-file with the added comments and the decision rule
* the lab report as word-file