Project 8: The Schelling Model

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1 Project

In this report, the color of houses are yellow and blue, which correspond to red and blue in the project sheet. I set the fraction of yellows and blue to be 0.3.

Here are maps of the cities for similarities of 0.3, 0.5 and 0.75. We see that as similarities goes up, the clumping effect increases.

We calculate two fractions f_1, which is the fraction of colored sites that have at least one neighbour of a different color and f_2, which is the average fraction of different neighbour colors(include white color in total) for similarities of 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.75. We see that the two fraction are all indicators of dissimilarity and they both decrease with increasing s.

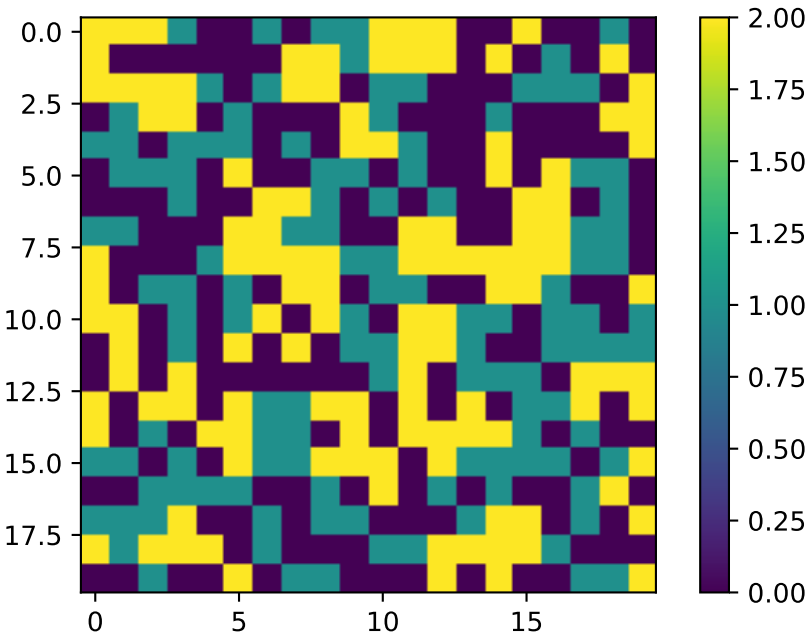

Figure 1: example map of cities of s=0.3

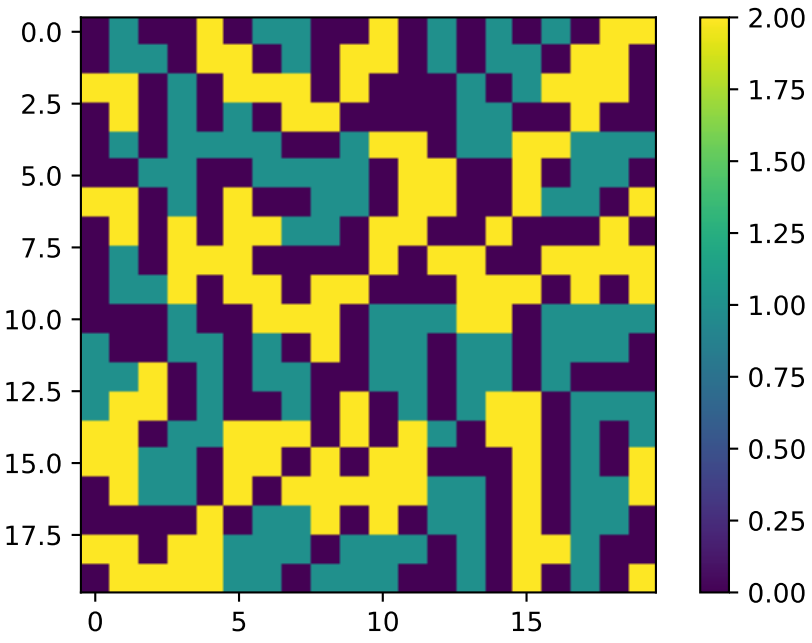

Figure 2: example map of cities of s=0.5

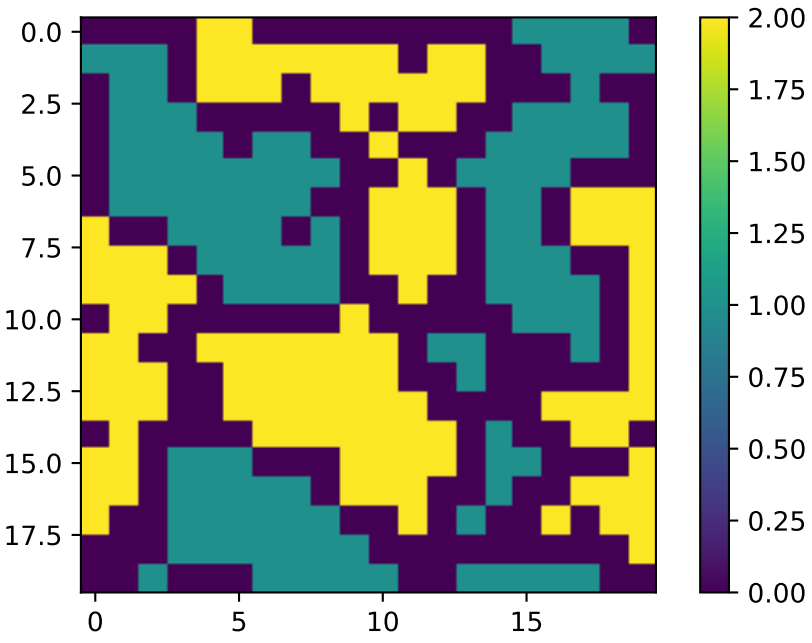

Figure 3: example map of cities of s=0.75

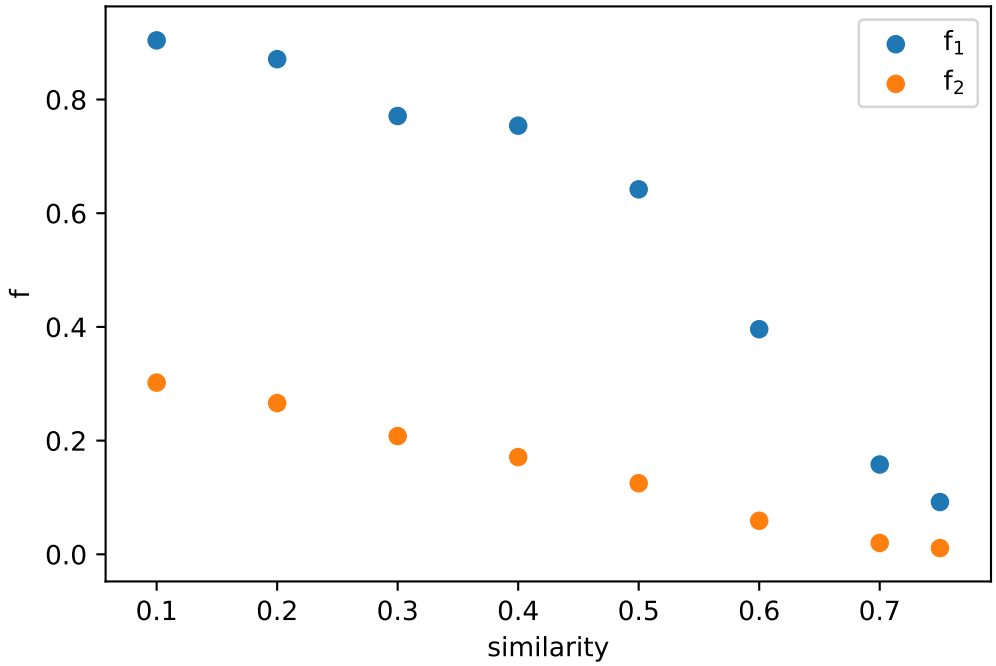

Figure 4: