

# Learning Dynamics: Assignment 2

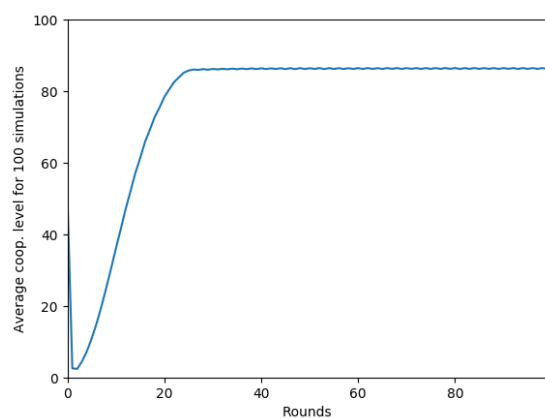
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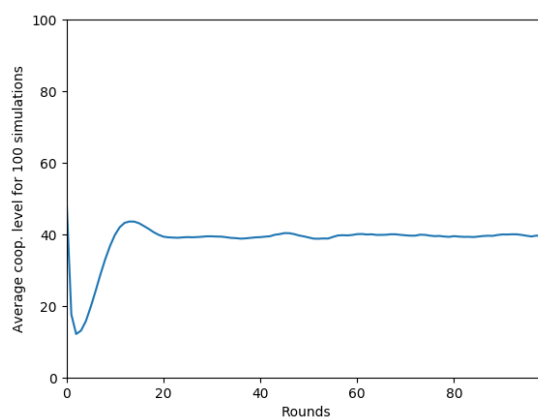
November 23, 2017

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(a) Moore neighborhood



(b) Von Neumann neighborhood

Figure 1: Cooperation level using unconditional imitation and weak prisoner's dilemma on a 50x50 lattice

## 1 Part I

## 2 Part II

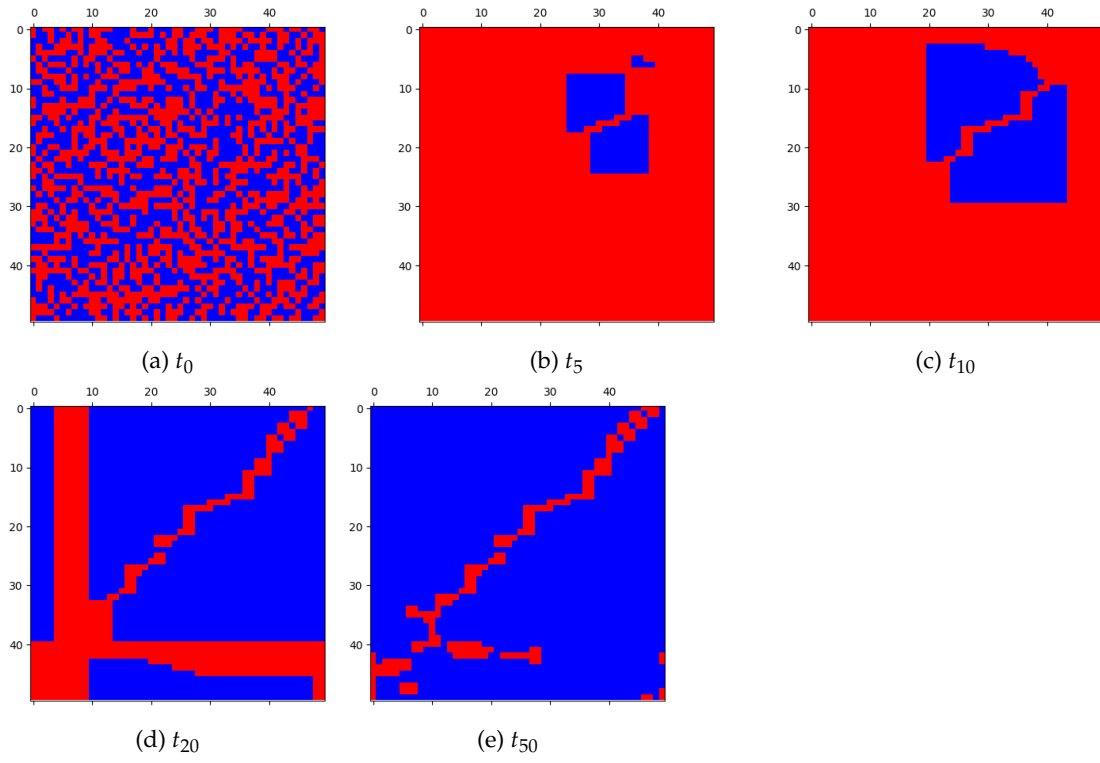
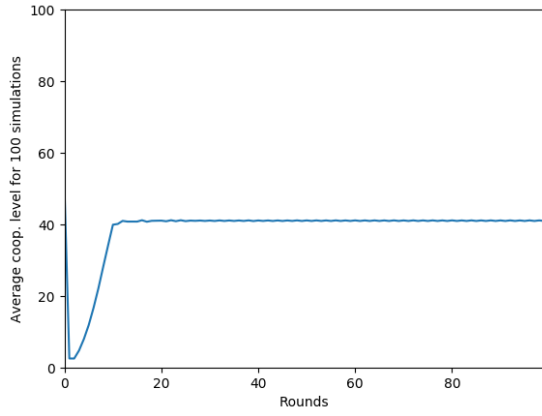
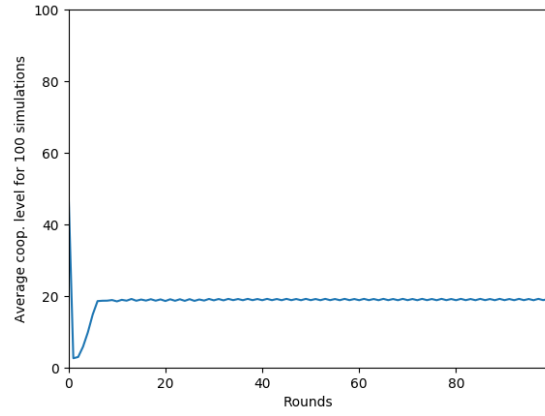


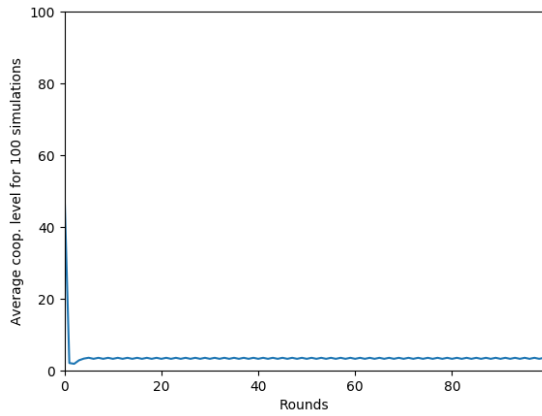
Figure 2: Visualization of a the lattice with unconditional imitation, Moore neighborhood and weak prisoner's, dilemma



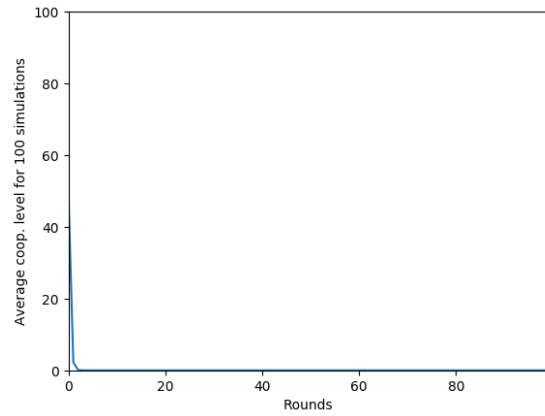
(a) 20x20



(b) 12x12

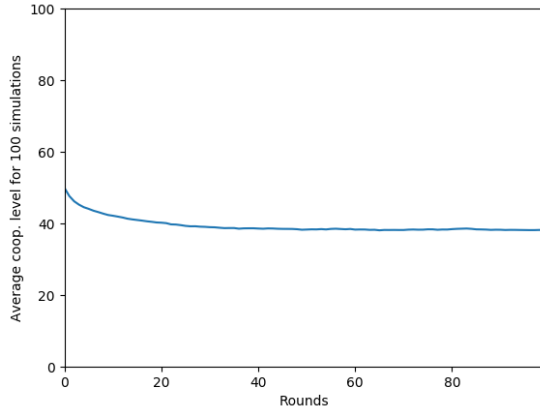


(c) 8x8

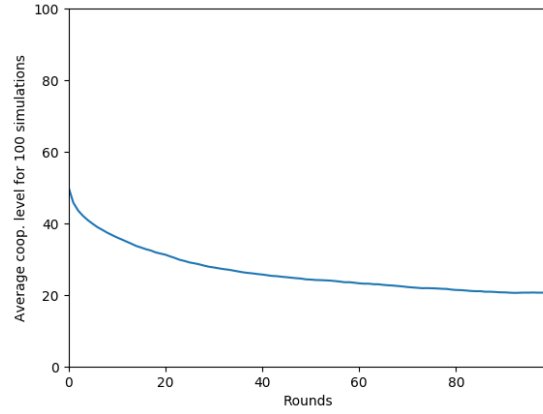


(d) 4x4

Figure 3: Cooperation level using unconditional imitation, Moore neighborhood and weak prisoner's dilemma

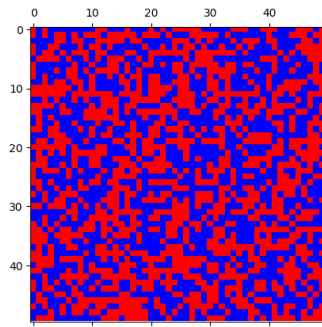


(a) Moore neighborhood

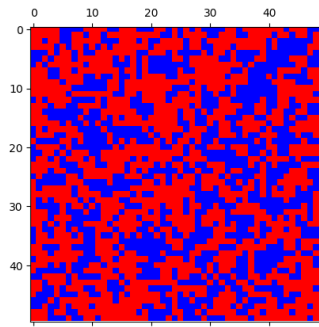


(b) Von Neumann neighborhood

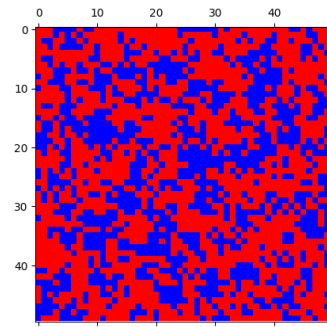
Figure 4: Cooperation level using replicator rule and snowdrift game on a 50x50 lattice



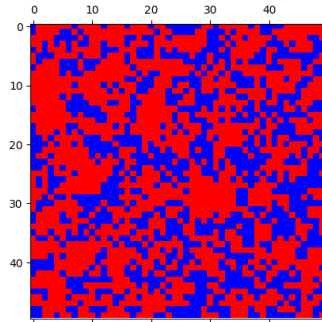
(a)  $t_0$



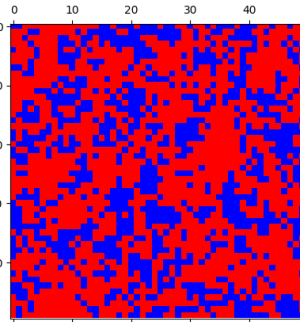
(b)  $t_5$



(c)  $t_{10}$



(d)  $t_{20}$



(e)  $t_{50}$

Figure 5: Visualization of a the lattice with replicator rule, Moore neighborhood and snowdrift game

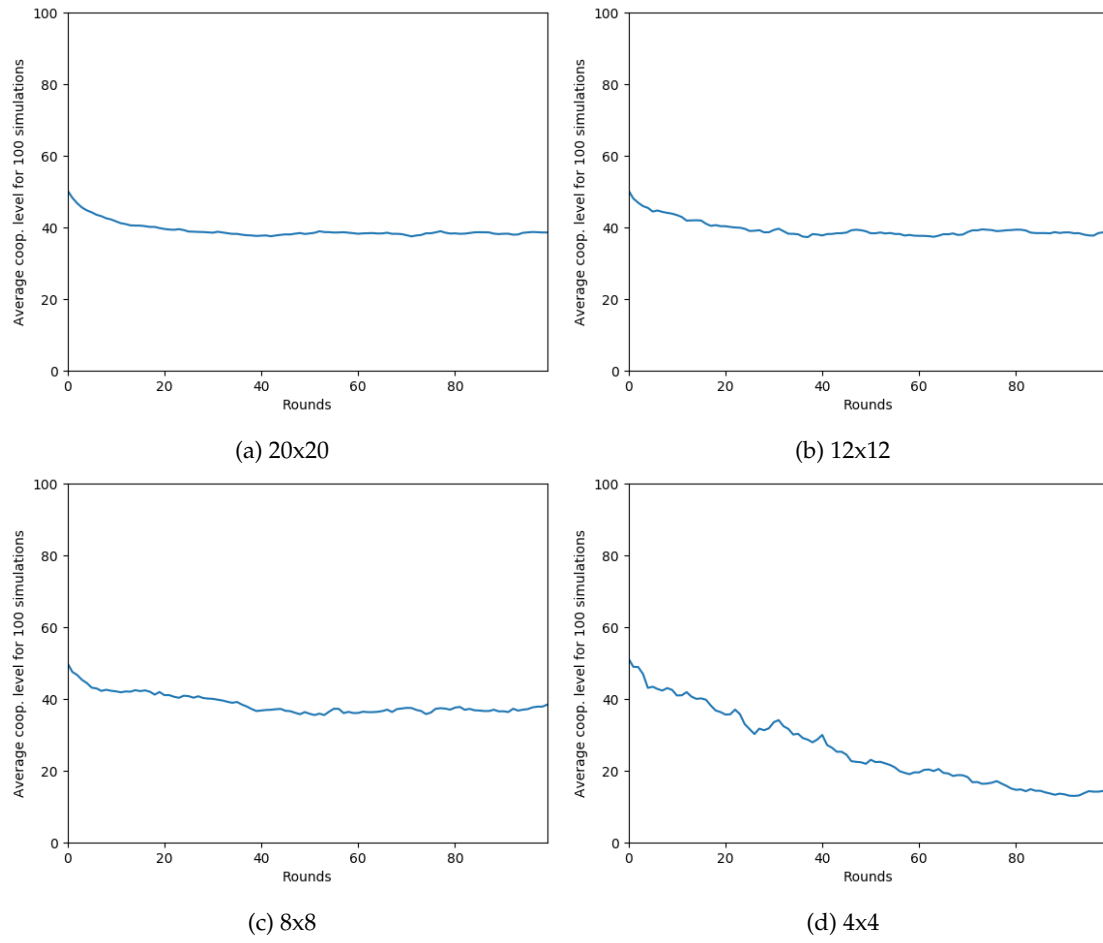


Figure 6: Cooperation level using replicator rule, Moore neighborhood and snowdrift game