Learning Dynamics: Assignment 2
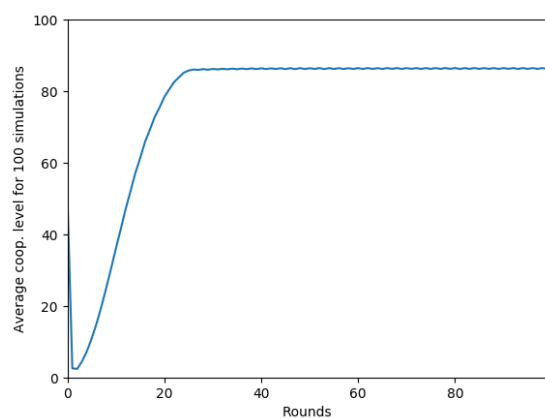
Hakim Boulahya
hboulahy@ulb.ac.be

Université Libre de Bruxelles
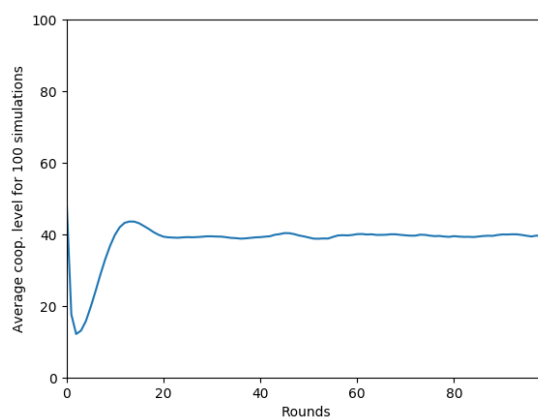
November 23, 2017

Contents

(a) Moore neighborhood

(b) Von Neumann neigborhood

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

1 Part I

2 Part II

(a) t_0 (b) t_1 (c) t_5

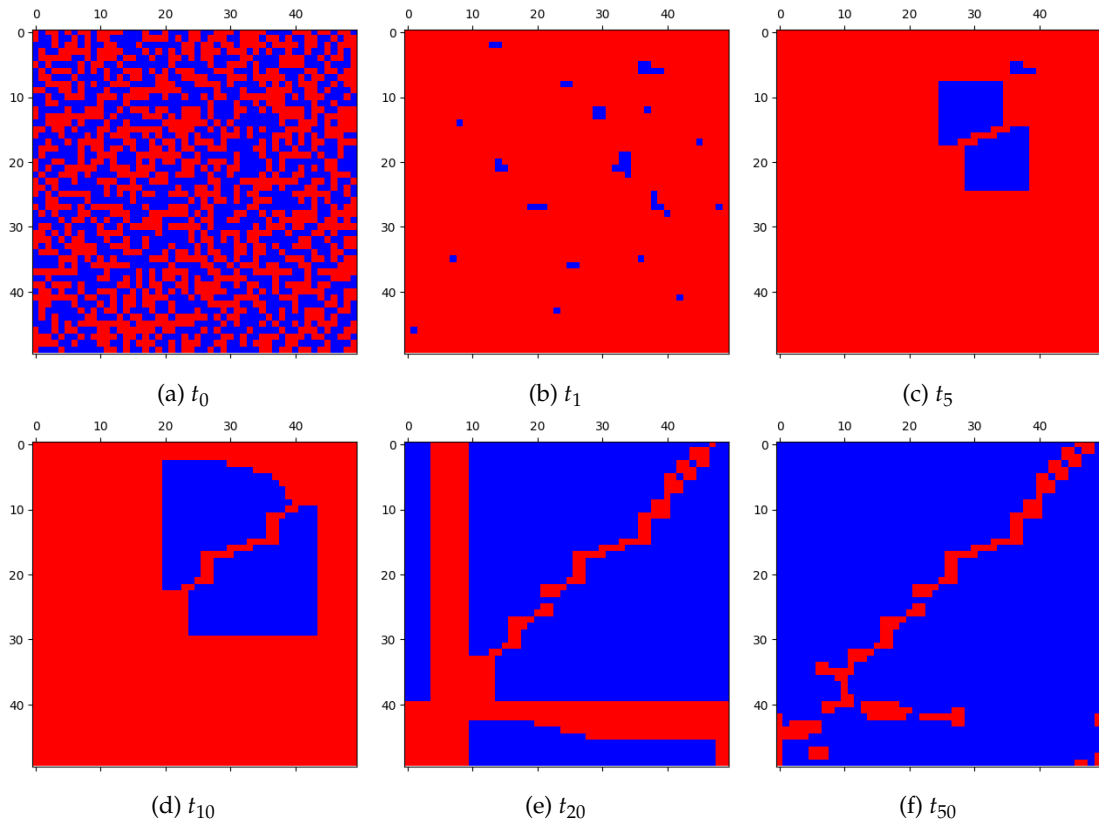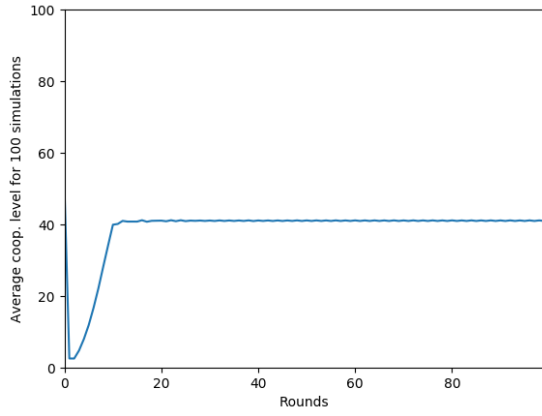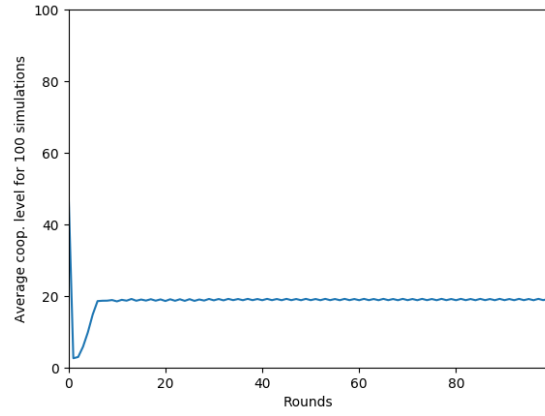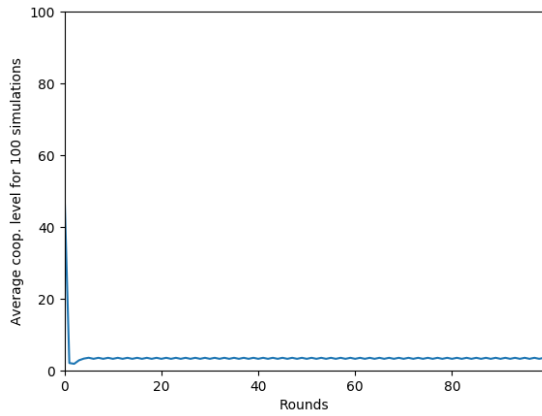(d) t_{10} (e) t_{20} (f) t_{50}

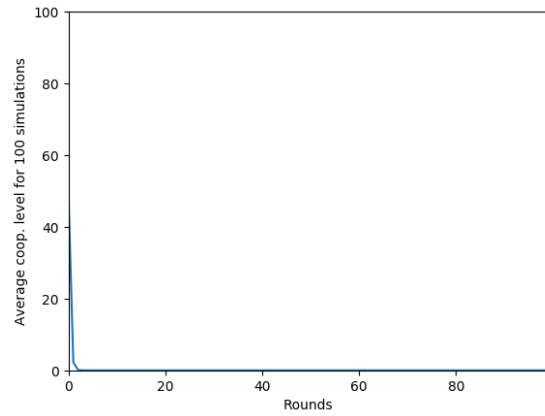Figure 2: Visualization of a the lattice with unconditional imitation, Moore neighborhood and weak prisoner's, dilemma

(a) 20x20

(b) 12x12

(c) 8x8

(d) 4x4

Figure 3: Cooperation level using unconditional imitation, Moore neighborhood and weak prisoner's dilemma
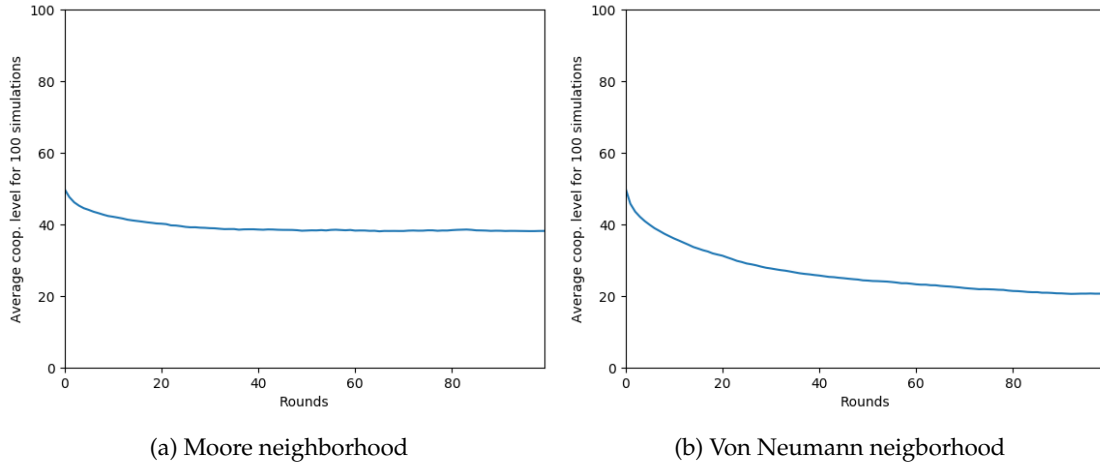
(a) Moore neighborhood   (b) Von Neumann neigborhood

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

(a) t_0 (b) t_1 (c) t_5

(d) t_{10} (e) t_{20} (f) t_{50}
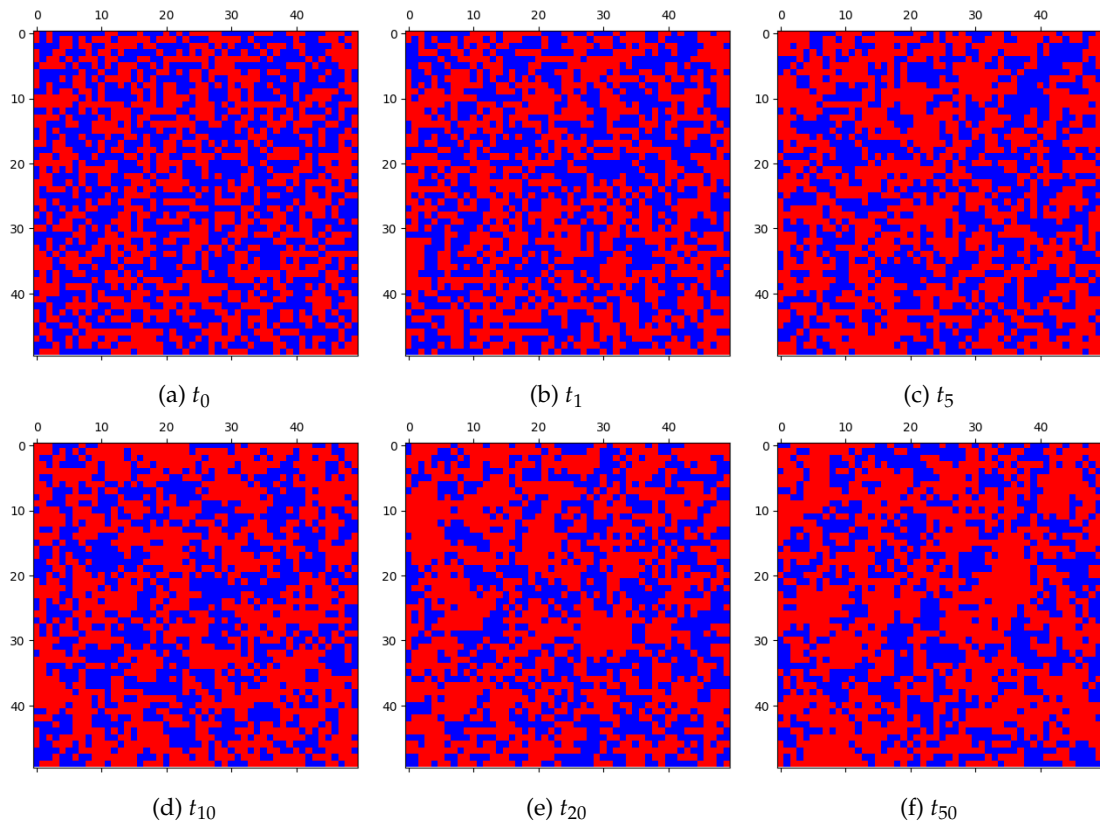
Figure 5: Visualization of a the lattice with replicator rule, Moore neighborhood and snowdrift game
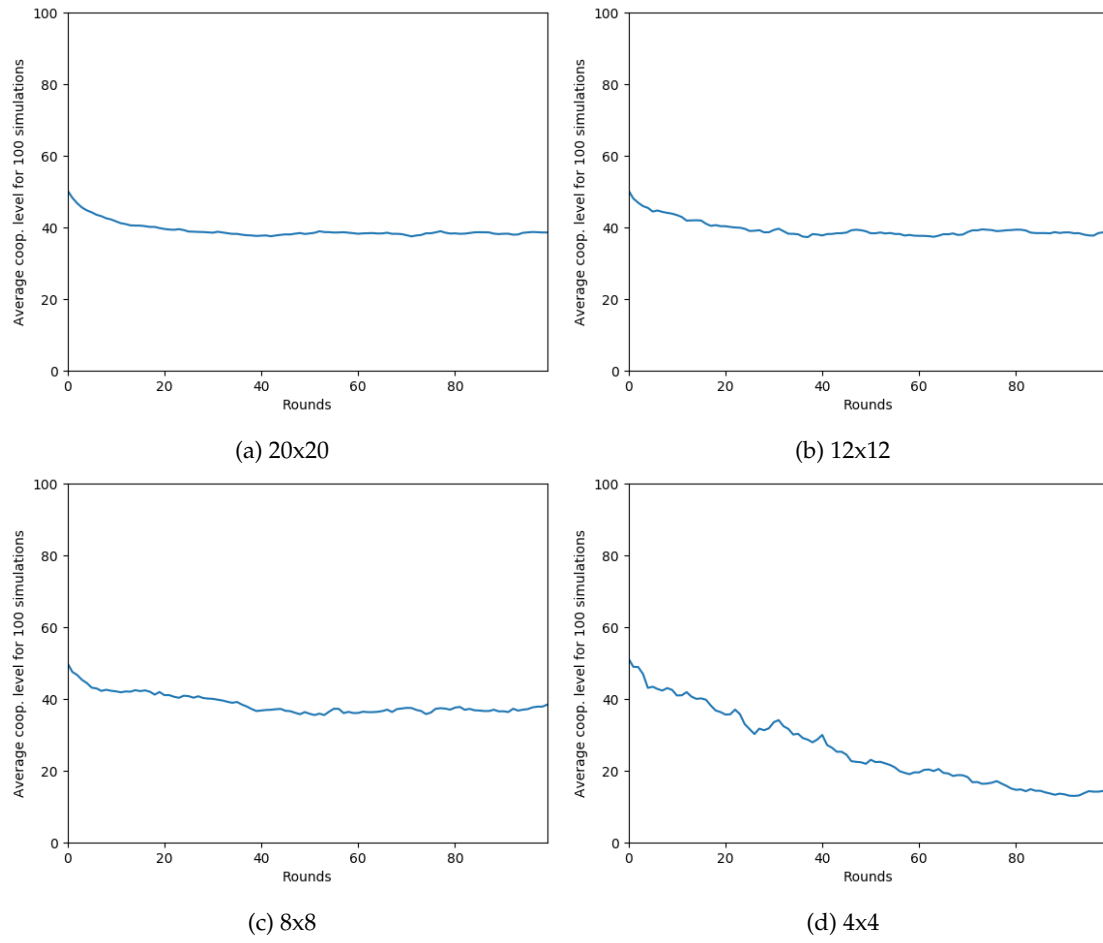
(a) 20x20

(b) 12x12

(c) 8x8

(d) 4x4

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