

## **CIM (week 21-25 October 2019) by Yérali Gandica**

In the following is the schedule for the CIM activity called: **Agent-based models: Theory and applications**. The idea is i) to show the students the main models used to simulate social phenomena, ii) To teach them how to program such models, and iii) the students should create new algorithms based on the general subject. We will address, as topic, **Social adaptability during times of immigration**. Then, we will try to find out whether we are able to detect recipes for better adaptability of the new members of society.

**Prerequisite:** Python, Matplotlib and networkX

### **Schedule**

#### **Monday 21/10/2019**

9h00-9h40:

Students will read the article alone (40 min)

- i) Write the parts that they didn't understand.
- ii) Write the main conclusion of the article
- iii) Write their own opinion about the overall article.

9h45-10h50

iv) Then in groups of 3 students, they will discuss points i,ii,iii.

11h00-11h40

v) They will read again the article alone and take her/his own conclusion.

13h00-15h30. Discussion about the reading and class with slides, and then we start the tutorial: Agent-based models: Theory and applications

#### **Tuesday 22/10/2019**

9h00-10h30: Discussion about the class on ABM. Hands on session I

11h00-12h30: Hands on session II

14h00-16h30: Discussion about projects with some computational tests. The projects can be developed in groups of maximum 5 students.

#### **Thursday 23/10/2019**

10h00-12h: consultation hours

#### **Friday 24/10/2019**

9h-12h presentations