

### **Exercise description:**

This exercise shows you how to implement a cellular automaton with two cell types that grow and engage in a mutualistic interaction.

You find two files, one with an exercise, and one with the solution. The files are two ipynb files, which can be opened with Google Colab (see below how to do open and run the code):

**solution file: CA.2d.training.complete.ipynb** is a python notebook which contains the full code implementing a two dimensional cellular automaton. The model is described in the notebook.

**exercise file: CA.2d.training.ipynb** is a python notebook which contains the code where students need to fill the gaps.

### **Steps**

Open the exercise file with Google Colab. Here you see how to open a notebook in Google Colab and how to run code: <https://colab.research.google.com/>

There is nothing to install, just run the code as it is, in Google Colab.

The exercise file guides you through some exercises where you need to fill missing code lines, to complete a cellular automaton simulation.

The solution file CA.2d.training.complete.ipynb will run the complete cellular automaton simulation and show you the results.