# Computer Lab | Sciences du Sol 2024 (ENV-222)

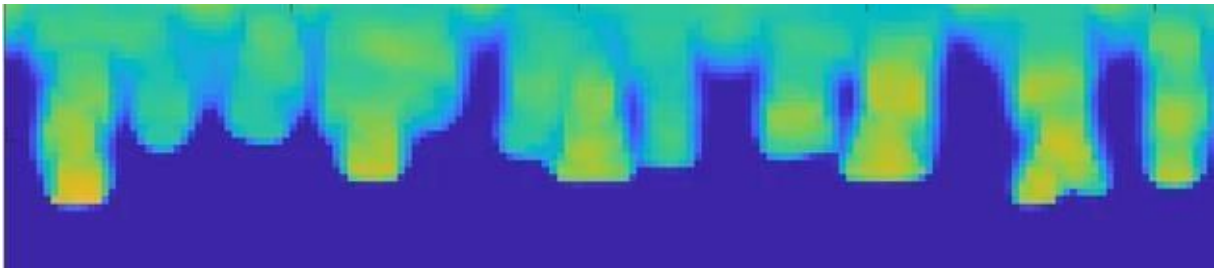

Image Credit: https://doi.org/10.1038/s41598-021-82317-x

## Introduction

The computer laboratory consists of a set of hands-on coding assignments to be carried out in groups of 2-3 students. The activities are an introduction to modelling soil-plant processes and aim to provide basic programming skills to solve common problems in soil science, analyse data, and simulate key vadose zone processes. The objective is to introduce students to scientific computing rather than using spreadsheets or "black-box" software. Most of the material is based on resources available online (mainly Py-Notes in Agriscience).

No prior knowledge of programming is required for this course. However, the assignments are based on Jupiter Notebooks written in Python and students are expected to acquire some basic understanding of coding by going through the different exercises ("learn by doing" ). The following links provide useful information to get started and become more familiar with installation packages, coding syntax, data types, control flow, etc:

- Installation packages
- Python programming: basic operation, modules, functions, lambda funcition, Numpy, Plotting

## Contacts

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