SUM UP of the meetings

Minutes for june 16, 2023

Present: Louis(in an outside mission), Ludo, Marine

Sum up

1. We make a resume of what we did the previous week because Louis was absent at that meeting.
2. I presented a new model for drosophila suzukii that I am thinking to work with a complicated one.

What I did this week

this week's work

github

1. adding every week's meeting
2. adding everything about the Python program (D.suzukii) file

Internship modeling

bifurcation curve —

equilibrium points —

writing the calculations in latex —

What is new

- adding female competition to the model

$$\begin{cases} \dot{L} = \beta \left(1 - \frac{L}{K}\right) v_F \left(\frac{M}{M+M_s}\right) \left(\frac{F}{F+F_s}\right) C(F)F - (\mu_L + v_L)\, L \\ \dot{M} = v_L m L - \mu_M M \\ \dot{F} = v_L (1-m) L - \mu_F F \end{cases}$$

- what could be the $C(F)$ function $C(F) = (1 - \frac{F+F_s}{K})$?

next week's work

- intersection of the two curves of the male release, and finding where is the problem numerically.
- Be careful of the gamma that I am using
- bifurcation curve for the 6 compartements,
- be sure that $M_s = 400$

- explains the probability more visually.
- table about the different models,

Next Meeting: (Tuesday June 20 :))