Contents

*[2026-01-25 Sun 09:54]*attempting to figure out why lines 45-45 seem to be pointing to wrong elements of I vector?

// Initial state. State values of QA0, QB0, QT0
let y0 = State::new(I[2], I[3], I[4]);

think if should be I 3, 4, 5? *[2026-01-25 Sun 11:50]*C-u C-c !

going create a new model script, strip out the "total pool" stuff and see if I can graph the concentrations

new name will be "$\text{jam}_{\text{twopoolnototal}}$"

remember in Rust , vector designations begin at 0 . . .

*[2026-01-26 Mon 12:39]*sent text to Sylvain Renevey asking for help, also put a question on Rust users group asking for suggestions

- need to ask Sylvain why both "‘// declare the external Rust crates required //use $\text{ode}_{\text{solvers}}$::rk4::*; use $\text{ode}_{\text{solvers}}$::*;"‘
  - should be every feature, therefor rk4 line not necessary, covered by others?

[2026-01-27 Tue 10:41] Professor Juan Zometa from the International University of Berlin, answered my question on Rust Users group, and said that he had encountered the same problem using the $\text{ode}_{\text{solvers}}$ crate, inability to extract non-state variables! He solved his problem by changing ode solvers written as part of the Russell consortium called $\text{russell}_{\text{ode}}$. Then he converted a model he had of a mechanical system to my bio one, using the $\text{russell}_{\text{ode}}$ solver and it appears to work great! Now to test it and try it, next to see if I can graph!

[2026-01-28 Wed 12:16] Very nice code from Pablo Zometa, works great, hope I can ask him a few questions to learn more about rust