

18.337 PSET 4, Spring 2023

Due on Gradescope Wednesday 11:59pm 4/19/2023

Version 1.0 Apr 5, 2023

Implement parts 3 (Implementing an ODE adjoint) and 4 (Training the neural ODE) of <https://book.sciml.ai/homework/03/>.

Note: I have some concerns about sign errors in Chris' original formulation, so I would like some volunteers to be early implementors and we will correct as we learn about these errors.

Here are some hints from last year (scroll down to part 3 and below): <https://github.com/mitmath/18337/blob/master/hw4/hints.md>. More hints may be added as necessary.

For reasons we never figured out, some students got it to work easily, others got convergence but very slowly, and others couldn't get it to converge at all. It wasn't clear that anyone did anything wrong. I hope we can figure out the reasons this year!

Also please start working in earnest on your projects. I'm happy to carve out a good part of a day and meet perhaps for 15 minute meetings for any group that would just like to tell me what you are doing, and perhaps I can offer some help or advice or point you to folks who can. (Not required, just an opportunity for those who would like to, and maybe I can learn a little bit about who you are and what you are doing.)