

# Goal and idea - Module 18

## **GOAL:**

Briefly explore some areas that differential equations arise.

- Some DEs are built from thinking about how variables are proportional or relate.
- Some DEs are built (or approximated) from crude data.
- Some DEs are systems of DEs which are topical at the moment!
- There are some lists of 'famous' DEs, I am a particular fan of Maxwell's Equations.
- There is a small discussion about some places DEs have occurred in my research areas.

## **IDEA:**

I write some stuff myself, and also punt some to Wikipedia and SIMIODE, a free educational tool funded by the NSF, which builds educational material for modelling.