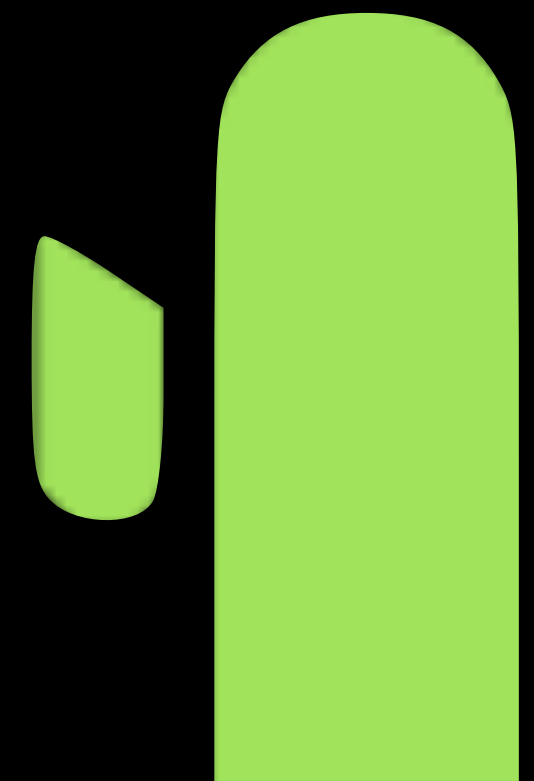# CACTUS - A MODULAR FRAMEWORK

- Funded partly by NASA's Binary Neutron Star Grand Challenge

- Developed at AEI/Cardiff/LSU, initial release in 1997

- Modular framework to **separate technical infrastructure** *(all the communication and grid structure stuff, etc.)* from **science code** *(variable definitions, right hand sides, numerical methods)* to ease development of grid-based partial differential equation sovlers

- Researchers need only write "thorns" that implement specific functionality

CACTUS - A MODULAR FRAMEWORK

- Cactus has a core framework called the "flesh"

  - The flesh handles the stuff that is common to all cactus grid simulations

    - A unified description of grid information

    - Initialization routines, simulation loop updating a timestep, and termination routines

    - Communicating with and track of other processes

    - The names and types of data and variables that can exist