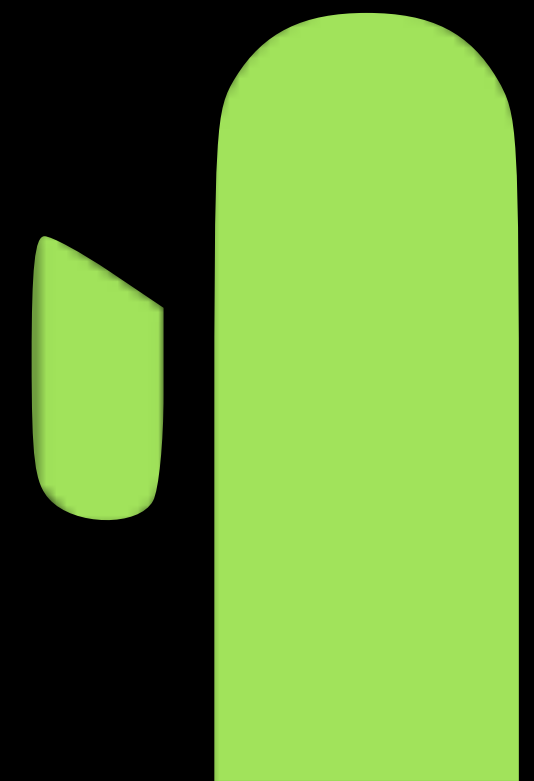# CACTUS - A MODULAR FRAMEWORK

- 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 from science code to ease development of grid-based partial differential equation sovlers

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

2005 - THE BREAKTHROUGH YEAR

- Stable formulations of Einstein's equations found (Generalized Harmonic Gauge & BSSN)

- Good coordinate choices found

- First stable evolution of binary black holes achieved (Pretorius, 2005)

- Simpler ways of handling BH interior found (moving "puncture" approach)

- Numerical Relativity takes off!