Exercise - Theory

- Analytically compute the relation between time t and a for a universe dominated by 1) radiation, 2) matter, 3) cosmological constant.

- Assuming $\Omega_m = 0.3$, $\Omega_\Lambda = 0.7$ and $h = 0.72$ write a program to compute distance as a function of redshift. At which z does the Universe have half of its current age?

Exercise - Simulations

- Download the Gadget file in the theory exercise page

- write your own gadget2ascii converter. Print positions and velocity of stars.