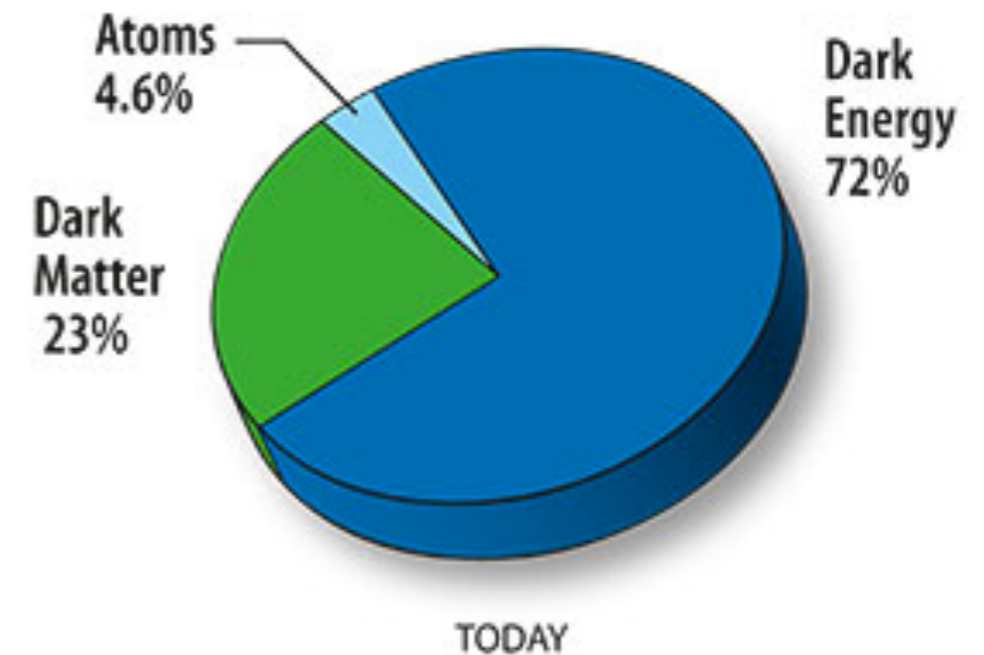


Cosmology: the origin and evolution of the universe

Energy budget of the universe today:



As the universe expands the energy densities change

Three 'dark' materials: matter, energy, and neutrinos

dark=interacts only through gravity
dark=mysterious!

Exploring the dark universe: summer research

Develop a new way to explore the physics of the dark universe

Treat all three 'dark' materials as a single 'dark fluid'

Use cosmological data to explore the properties of the dark fluid

Experience with python/programming a plus

For example: the speed of dark

The sound speed of the dark fluid:

