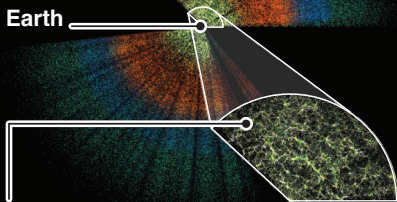


Theory: dark energy may be weakening

The mysterious force, which is thought to power the expansion of the universe, may be weakening, changing scientists' understanding and suggesting the universe could end in a reverse Big Bang

Dark Energy Spectroscopic Instrument has captured 15 million galaxies and 11 billion years of history to create largest-ever 3D map of universe

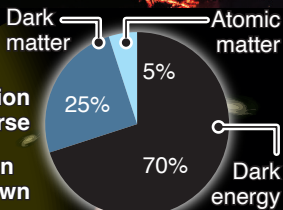


DESI maps position of distant objects to measure effect of dark energy

COSMOLOGY STANDARD MODEL

Big Bang: Explosive birth of universe 13.8 billion years ago

Composition of universe



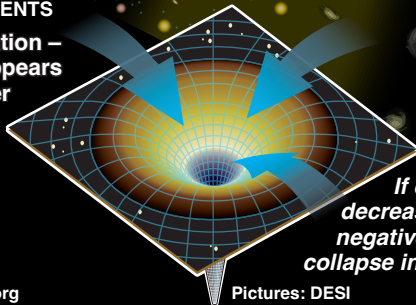
Instead of slowing, expansion is speeding up due to unknown force – dark energy

Distance between galaxies increases
If dark energy is constant, galaxies will eventually be too far apart to see

DESI MEASUREMENTS

Cosmic acceleration – dark energy – appears to be 10% weaker than 4.1 billion years ago

Expansion still accelerating, but at lower rate



Big Crunch:
If dark energy keeps decreasing – or becomes negative – universe could collapse in reverse Big Bang