**Types of Galaxies**

- Spiral NGC 4614
- Elliptical M87
- Peculiar Centaurus A
- Irregular Small Magellanic Cloud
- Bare Spiral N53 1530

**Evidence for Hidden Mass**

In many systems in the universe, objects move at just the right speed to construct gravity – any faster would mean escape, any slower, collapse to the center.

In our solar system, the outer planets move faster than expected outside Earth, which suggests there is a force by an unseen mass nearby. X-ray observations of elliptical galaxies reveal the same peculiarity. Gas and stars in the outer reaches of the galaxies are moving far too fast to be held in place by the gravity of the visible stars and gas. This makes it seem the galaxies are missing enough mass to be held together.

So why aren't the stars and gas escape? Scientists hypothesize that "hidden mass" may help galaxies hold these high-speed stars and hot gas.