

Arvind Borde

AST 10: Homework 10

1. What prevents these from undergoing immediate gravitational collapse?
 - a) You.
 - b) Your astronomy professor.
 - c) The Milky Way.
 - d) The Universe.
2. Is a static Universe stable or unstable in
 - a) Newton's theory?
 - b) Einstein's theory?
3. What is the role of Λ , the cosmological constant?
4. Hubble's law says that $V = HR$. If V , the speed of recession of a distant galaxy, is expressed in km/sec, and R , the distance to the galaxy, is expressed in km, what are the units of H (called the "Hubble constant")?
5. If galaxy A is twice as far from us as galaxy B, how much faster or slower is it receding from us?