Introductory Astronomy

Week 4: Stars
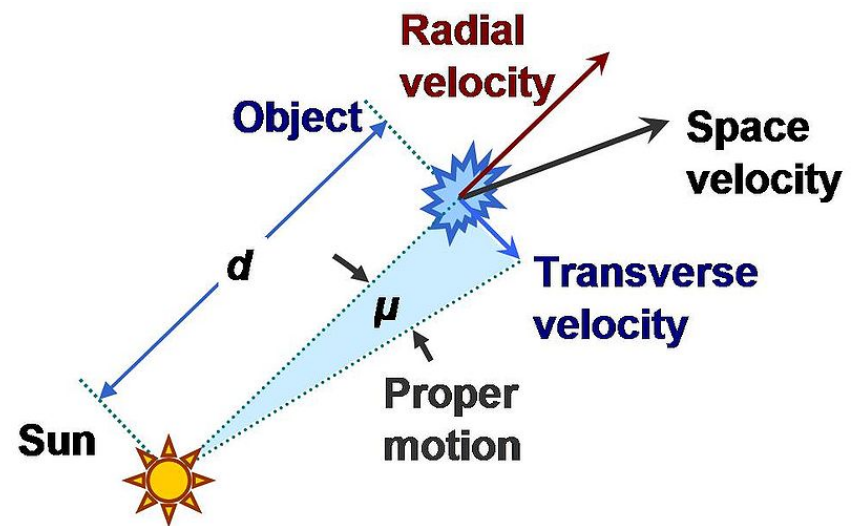
Clip 8: Astrometry

Duke
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Proper Motion

- Some nearby stars observed to move relative to distant stars
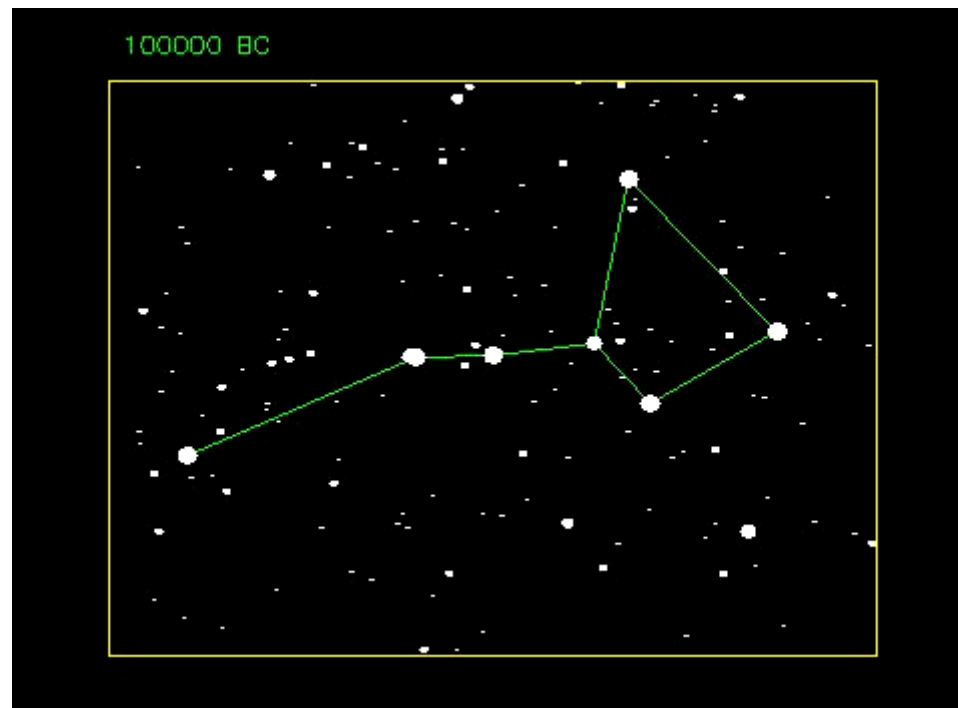- Find tangential velocity v_T from angular proper motion μ

$$v_T = 4.74\mu D$$

- Radial velocity from Doppler

$$v_r = c(\lambda/\lambda_0 - 1)$$

Big Dipper?

Credits

- Proper Motion: Wikimedia/Brews ohare http://en.wikipedia.org/wiki/File:Proper_motion.JPG

- Ursa Major Animation: R. Pogge, http://www.astronomy.ohio-state.edu/~pogge/Ast162/Movies/