

April 13, 2021
MSE 2103 topics

- Trouble with gravity revisited
- Yet ... why is the sky dark at night then?
- The statement of Olbers' paradox
- Proposed solutions:
 - perhaps the universe is *young* and *infinite*?
 - stars are not uniformly distributed?
 - how about obscuring dust?
 - perhaps the number of stars and galaxies is sufficiently low?
- The actual solution of the Olbers' paradox
- But ... but ... but ... why isn't stuff hurling in then?
- Hubble's law
- Center of the Universe?
- Hubble's law revisited: two ways to make it happen
 - Doppler shifts vs. cosmological redshifts
 - implication from both scenarios: time has a beginning!
- The Hubble constant and why it's not really a constant
- The age of the Universe from Hubble's constant