

March 30, 2021
MSE 2103 topics

- Recall: *why* are open clusters young and globular clusters old?
- The oldest globular clusters?
- Ok, 12.6 billion years. But *what is the uncertainty?*
 - elemental composition
 - how accurately do we know the distances?
 - how accurately can we predict stellar lifetimes?
 - Yikes! 10.6 to 16.0 billion years? Seriously??
- Age of the Milky Way galaxy
 - the story of cosmic beryllium
 - 1 : 2.2 trillion → ~300 million years
- How about white dwarfs? Is the accuracy any better?
- The highly unusual interiors of white dwarfs – degenerate gas
- The consequence: constant radii for all temperatures
- The consequence: cooling curves of white dwarfs
- The consequence: mass still one parameter to rule them all!
- Easy peasy: find the faintest white dwarf out there!
- Curious ~3750K cut-off – age of the Universe?
- Oldest white dwarfs: 11-14 billion years