

March 25, 2021
MSE 2103 topics

- Computing principal stellar parameters across the H-R diagram
 - given the luminosity, what is the absolute magnitude?
 - given the absolute and apparent magnitude, what is the distance to the star?

Luminosity: _____

Mass-Luminosity: _____

Apparent magnitude: _____

Absolute magnitude: _____

Distance modulus: _____

- 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