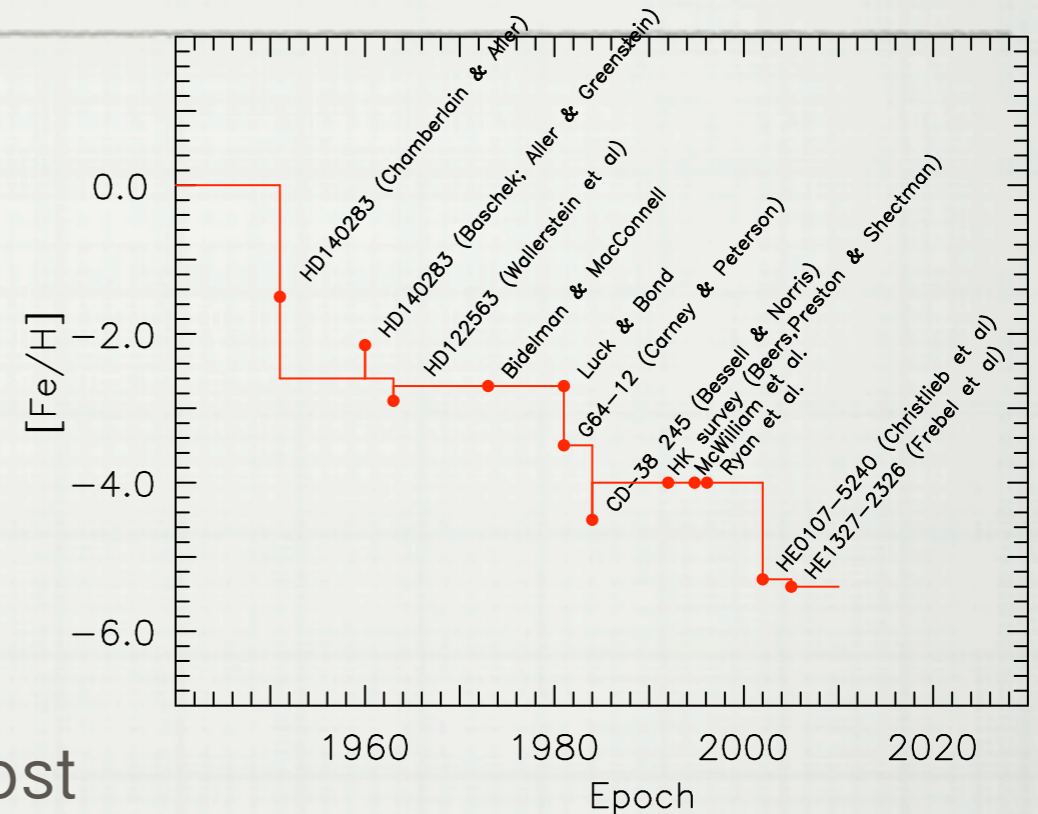


# GAS AND METAL-POOR STARS

## The most primitive stars:

- EMP stars: how low can you go?
- What redshifts or luminosities can we hope to find Pop III stars, or learn most from non-detections? (Evan)
- What are we really learning from the most metal-poor ( $[Fe/H] < -4$ ) stars compared to merely low-metallicity stars ( $-4 < [Fe/H] < -2$ )?
- Do dwarf galaxy EMP stars teach us something different than halo EMP stars? (Evan)

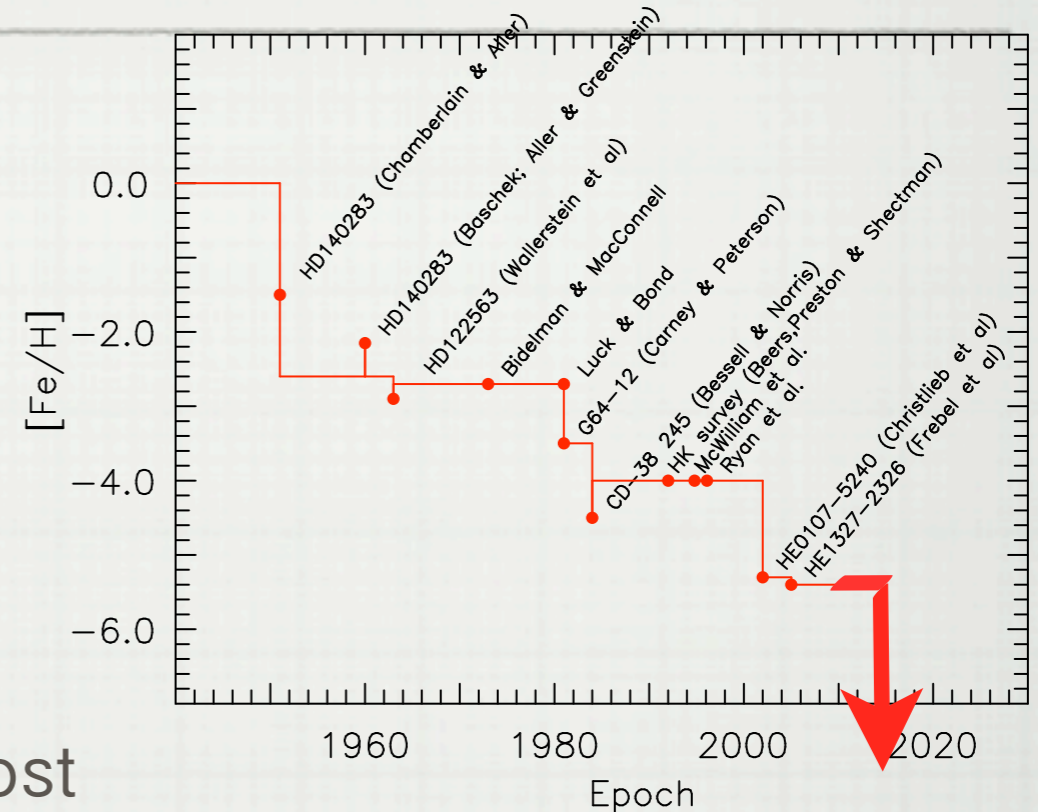


(Frebel & Norris 2011)

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# GAS AND EARLY STAR FORMATION

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- What are implications of low-energy, Fe-poor Pop III supernovae on high-z star formation? (Anna)
- Is the formation of the first metal-rich stars in the universe different from star formation today? (Does the typical high-z, low-metal galaxy look like a big GMC?)
- Do metal-poor stars form in fundamentally different ways than  $[\text{Fe}/\text{H}] \sim 0$  stars?
- Can we directly connect MW satellite galaxies to metal-poor high-z galaxies? (Ryan)

# METHODOLOGY

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- How much is our understanding of chemical evolution fundamentally constrained by model uncertainty (i.e., chemical evolution models)?
- Are we missing the whole picture by focusing on individual element abundances and not overall metal content? (Fe-poor stars are not really metal-poor?) (Molly)