

# CEMP Stars as Probes of First-Star Nucleosynthesis, the IMF, and Galactic Assembly



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The lowest metallicity stars that still exist today probably carry the imprint of very few supernova. As such, they represent our best observational approach to understand the First Stars. In this talk I will review the early (chemical) evolution of the Milky Way system from both modeling and observational perspectives. In particular, I will present results of the Pristine survey, a Franco-Canadian photometric narrow-band survey designed to efficiently decompose the metallicity structure of the Milky Way halo. I will show how we use this discriminatory power to hunt for the very rare extremely metal-poor stars (bearers of the chemical imprint of the first stars), including CEMP stars, and greatly improve our study of metal-poor substructures in the halo.

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