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



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Exploring the stellar ionising continuum of galaxies in the context of cosmic reionisation

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Cosmic reionization corresponds to the period in the history of the Universe during which the predominantly neutral intergalactic medium was ionised by the emergence of the first luminous sources. I will first briefly describe what we know about cosmic reionisation from observations, and explain the actual limitations/challenges of state-of-the art simulations of this phenomenon.

In particular, the nature of the sources of reionisation is one of the main unknowns of reionization studies. Young stars in primeval galaxies may be the sources of reionization, if the ionising radiation, called Lyman continuum (LyC), that they produce can escape their interstellar medium. The strength and shape of this stellar ionising continuum is vastly unknown. I will describe direct and indirect ways to probe the shape of the stellar ionising spectrum of galaxies, and to put constraints on the nature of the sources powering it.

Primary authors: Prof. VERHAMME, Anne (UNIGE); Mrs SIMMONDS, Charlotte (UNIGE)

Presenter: Prof. VERHAMME, Anne (UNIGE)

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