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Structural Patterns of CEMP Stars in the Thick Disk of the Galaxy

Thursday, 6 December 2018 17:00 (10 minutes)

We present results on the analysis of kinematic and chemical-abundance patterns of stars included in the AAOmega Evolution of Galactic Structure program (AEGIS) and LAMOST DR3. We examine this combined dataset for evidence of carbon-enhanced metal-poor (CEMP) stars associated with the inner halo, thick disk, and metal-weak thick disk (MWTD) of the Galaxy. Of special interest are the CEMP-s stars (which exhibit overabundances in s-process elements) and the CEMP-no stars (which have no neutron-capture element overabundances). By studying the kinematics of CEMP-s and CEMP-no stars in the inner halo and disk system, we aim to better constrain the formation history of the MWTD. The study of structure in the disk system and possible evidence of a past merger (that may have given rise to the thick disk) is an especially pertinent topic after the release of Gaia DR2, and this dataset provides a unique opportunity to examine this.

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Talk/Poster

Talk

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