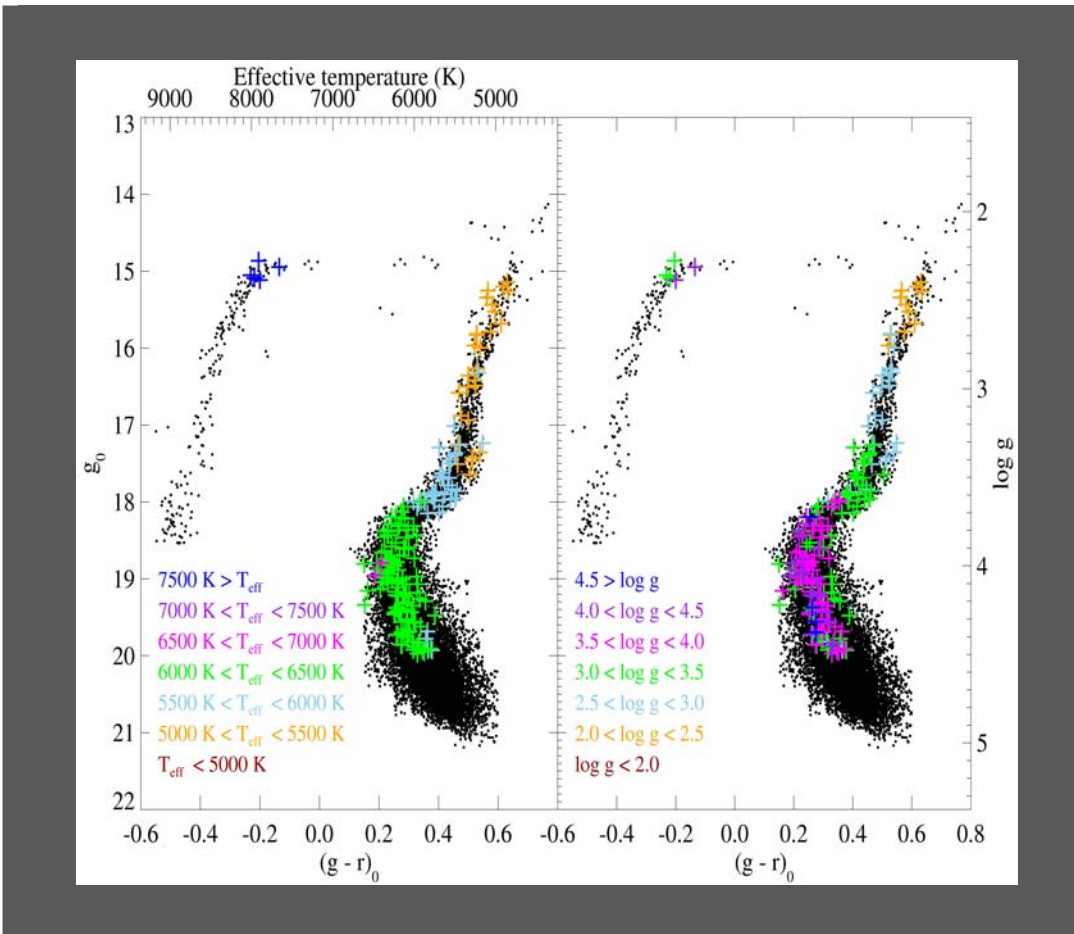


## Development and Validation of the SDSS/SEGUE Stellar Parameter Pipeline



The Globular Cluster M13

Temperatures and surface gravities of stars estimated by the SSPP for the globular cluster M13 are compared with their expected positions on this clusters color-magnitude diagram. The excellent agreement indicates the SSPP provides derived stellar parameters that can be used for detailed examination: the nature of stellar populations throughout the Milky Way. Papers describing operation and validation of the SSPP are in preparation.

As part of their involvement in the extension of the Sloan Digital Sky Survey (SDSS-II) SEGUE (Sloan Extension for Galactic Exploration and Understanding) program, JINA scientists have developed a set of analysis procedures that can be used to estimate the fundamental atmospheric parameters of stars in the Milky Way, based on SDSS spectroscopy and Photometry. The SDSS/SEGUE Spectroscopic Parameter Pipeline (SSPP) has been demonstrated recently, on the basis of comparisons with Milky Way globular clusters and field stars, to be capable of making measurements of the temperatures ( $T_{\text{eff}}$ ) accurate to 150K, surface gravities ( $\log g$ ) accurate to 0.3dex, and metallicities ( $[\text{Fe}/\text{H}]$ ) accurate to 0.2dex for stars in the Milky Way. These results were recently reported at the 209<sup>th</sup> meeting of the American Astronomical Society.

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