

The GST (Gaia GSP-spec/TESS) catalogue: Exploring the Milky Way by coupling Gaia spectroscopic and TESS asteroseismic data

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The *Gaia* DR3 has parametrised 5.6 million stars based on their Radial Velocity Spectrometer (RVS) spectra (DPAC/GSP-spec module, Recio-Blanco et al., 2023). We have selected a sample of 153,544 GSP-spec stars with known spectroscopic atmospheric parameters, chemical abundances, and with asteroseismic TESS data. The asteroseismic and spectroscopic surface gravities are found to be in very good agreement: 80% and 21% of the whole *GST* sample have a gravity difference smaller than 0.2 dex and 0.05 dex, respectively. Those stars have been identified as RGB and RC stars, and we have analyzed their Galactic locations, chemical abundances, masses, ages and orbital energy distributions. This *GST* sample will be presented and its properties will be discussed within the context of Galactic Archaeology and Stellar Physics.

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Session Classification: AGB stars as cosmic probes for clusters and galaxies evolution