

We plan to review the current empirical evidence and theoretical predictions concerning the metallicity gradients in the Halo and in the thin disk. To trace the metallicity distribution across the main Galactic components we plan to use RR Lyrae stars that are old ($t > 10$ Gyrs) stellar tracers and Classical Cepheids that are young ($t < 300$ Myr) stellar tracers. They are accurate primary distance indicators and the pulsation period is also correlated with their individual ages. We focus our attention on the lack of a metallicity gradient in the Halo and on the occurrence of radial gradients in the thin disk for all the elements, but barium, that have been investigated. Furthermore, we plan to discuss the large spread in the outskirts of the thin disk.