



Errors of star positions in the most accurate catalogues. Tycho Brahe achieved a jump in accuracy through the first "big science" in history. After four centuries with more gradual improvement another much larger jump in accuracy is obtained by the ESA satellite giving the HIPPARCOS and TYCHO catalogues containing a total of one million stars. - Parallaxes are also measured by TYCHO, HIPPARCOS and GAIA with the same accuracy as positions.