ASTROMETRY AT USNO

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Trigonometric parallaxes are being measured at the U.S. Naval Observatory using relative astrometry in a small field, and an accuracy of 0.3-0.5 mas is achieved routinely. These allow useful distance determinations for white dwarfs, planetary nebulae, dwarf carbon stars, and low-luminosity brown dwarfs and subdwarfs. In addition, absolute astrometry of stars and asteroids is being done with an accuracy about 20 mas for purposes of better orbit determination, prediction of stellar occultations by asteroids, and spacecraft navigation. USNO creates star catalogs such as UCAC and USNO-B for use as reference catalogs that are essential for absolute astrometry.