Astrometric observations of high accuracy of asteroids by occultations of "Hipparcos" stars.

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The list of ground-based astrometric observations of high accuracy should include occultations of stars by asteroids. Even a $\pm 0.2 sec$ timing error of an occultation will for an asteroid with a normal daily motion tie the position to the star with a formal error of only $\pm 2 mas$. The value of occultation observations will greatly increase in the future when the poles of rotation and shapes of the asteroids will be better know and the observations may be re-reduced from the irregular limb to the center of mass. This is in sharp contrast to most present day positions of asteroids which have mean observational errors of order ± 1" and will deteriorate in the future because reference stars and often not even the catalogues are stated. The most difficult obstacle for occultation observations today is the very incertain predictions. This will change completely for a given object as soon as three occultations among the numerous "Tycho" stars have been observed.