The predictions of occultations and close approach of stars.

Jérôme Berthier
Bureau des Longitudes, URA 707 CNRS
77, av. Denfert Rocherea 75014 Paris
e-mail: berthier@bdl.fr

The observations of occultations of stars by asteroids (and more generally by solar system objects) allow many applications such as high precision astrometry (order of 0.01 arcsec). It's also the sole way to get planetological information from Earth such as structure, shape, dimensions and neighbourhood of the asteroid. This kind of events occurs many times per day, but there are only ten or so successful observations each year. Therefore it is increasingly necessary to develop and inprove the predictions of occultations of stars by solar system objects, and their applications.