

the ecliptic coordinate system

Right ascension and declination are the most commonly used coordinates for objects outside our solar system. In problems dealing with the positions and motions of solar system objects, however, it is often more convenient to refer positions to the mean orbital plane of the solar system using *ecliptic coordinates*. *Ecliptic latitude*, β , is analogous to declination, but measures distance north or south of the ecliptic, attaining $+90^\circ$ at the *north ecliptic pole (NEP)* and -90° at the *south ecliptic pole (SEP)*. In Figure 17, the ecliptic latitude of the star X is given by the arc YX .

Ecliptic longitude, λ , is analogous to right ascension and is measured from the first point of Aries, γ , in the same direction as right ascension but along the ecliptic rather than the celestial equator. In Figure 17, the ecliptic longitude of the star X is given by the angle between γ and Y .

figure 17: The ecliptic coordinate system.

