

What is the angle between the plane of the solar system and the galactic plane?

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The Ecliptic is inclined at an angle of 62.6° from the galactic plane, where the galactic plane is defined as the plane perpendicular to the galactic axis of rotation which has half the mass of the galaxy above the plane and half below. The Sun rotates in an orbit with a radius of roughly 25,000 light years, and is roughly 15-100 light years above the galactic plane at present (the uncertainty results from our imperfect knowledge of the mass distribution in the Galaxy). The Sun oscillates up and down relative to the galactic plane with a period of about 90 million years, making about 2.7 oscillations during one orbital period. A great picture of the alignment is shown in Ref. 4.

References:

1. <http://cxc.harvard.edu/ciao/ahelp/prop-coords.html>
2. http://en.wikipedia.org/wiki/Sun#Motion_and_location_within_the_galaxy
3. http://en.wikipedia.org/wiki/Milky_Way#Sun.27s_location_and_neighborhood
4. <http://www.telusplanet.net/public/fenertyb/solsysGC.html#top>