

# Plasma structure in the heliosphere

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A solar wind parcel evolves as it moves outward, interacting with the solar wind plasma ahead of and behind it and with the interstellar neutrals. This structure varies over a solar cycle as the latitudinal speed profile and current sheet tilt change. We model the evolution of the solar wind with distance, using inner heliosphere data to predict plasma parameters at Voyager. We use the recent latitudinal alignment of Ulysses and Voyager 2 to determine the amount of solar wind slowdown due to interstellar neutrals at 80 AU and estimate the interstellar neutral density. We use Voyager data to predict the termination shock motion and location as a function of time. We make predictions of the plasma conditions in the heliosheath.