An Estimate of Solar Wind Velocity Profiles in a Corona] Hole and a Corona] Streamer Area (6 - 40 $R_\odot$)

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Using the total electron content data obtained by the Ulysses Solar Corona Experiment during the superior solar conjunction in summer 1991, we selected two data sets, one associated with a coronal hole and the other one with coronal streamer crossings, By doing this data splittin , we find two entirely different density profiles varying as $r^{-2.7}$ and r^{-3} for the coronal hole and coronal streamers, respectively. Assuming mass flux conservation from the inner corona to one AU, an estimate for the velocity profiles or acceleration in these two different regions can be determined. The more negative exponent of the coronal hole density profile indicates a more extended heating and acceleration region or more flaring, or both. Various possible explanations will be discussed.

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