



## **Temporal and spatial variation of the solar wind bulk properties by STEREO PLASTIC at solar minimum**

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The STEREO mission was launched near solar activity minimum so that the first results report on a quiet Sun. The separation of the two spacecraft increases by 45 degrees per year providing a unique tool to study the spatial and temporal evolution of the solar wind. The two spacecraft have nearly identical instrumentation hence delivering comparable results. We analysed the solar wind plasma parameters measured by the two PLASTIC instruments on board the two STEREO spacecraft. During the first half year of plasma measurements we have found nominal solar wind conditions with alternating slow and fast solar wind streams. To evaluate the temporal and spatial variation of the solar wind we calculate the cross correlation between the solar wind plasma parameters measured by the two spacecraft. If the solar wind plasma was identical at both spacecraft, the measurements would be the same, but there would be a timelag of the solar wind arrival times between the two spacecraft. Considering the different spacecraft positions and solar wind speeds, we calculated the timelag. Adjusting for this timelag we obtain two samples of solar wind that corresponds to the same solar origin, but emerged at different times. This way the solar wind bulk property measurements of the two spacecraft are comparable and the correlation between the two harmonized datasets can be calculated. We show how this correlation decreases as the time difference between two corresponding measurements increases. As a result, the characteristic temporal and spatial changes in the solar wind bulk properties can be inferred.