



Statistics on the spatial distributions and transition characteristics of the bow shock crossings at Saturn

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In this study we analyse the spatial distribution and transition characteristics of the bow shock crossings so far encountered by Cassini in the plasma environment of Saturn. We use CAPS-IBS, CAPS-IMS Singles and the Magnetometer data in order to estimate the ion populations in the vicinity of the shock front together with the obliquity of the shock. We are looking for signatures in the data to assess whether there is any special feature of these crossings which might distinguish the bow shock of Saturn from other planetary shocks, or to establish the basic similarities between them.