**Shock Wave Magnetic Field Jumps Statistics**

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In this work we statistically investigate the dependence between maximum magnetic field jumps through the magnetosphere shock wave and plasma's Mach number. We compare the statistics of 2797 Magnetospheric Multiscale (M MS) Mission shock wave cross section events with theoretical relation for these parameters. Based on this comparison we provide an estimation for the electrostatic potential jump for the magnetic shock waves. Also, we compare the in-situ observations of magnetic field across shock waves with related solar wind magnetic field data, which often used for estimation of upstream magnetic field and provide the statistics for these observations.