Statistical properties of the solar wind and interplanetary magnetic field during periods of minimum and maximum of solar activity

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On the basis of data from WIND satellite for years 1995 and 2000 we investigate statistical properties and correlation dependence of solar wind plasma and interplanetary magnetic field during minimum and maximum of solar activity. Analysis of the dependence of temperature on plasma density enables us to determine the polytropic and adiabatic indices for solar wind electrons and protons, which are important for MHD description of solar wind plasma. The dependence of southward component of IMF, plasma density, dynamic, kinetic, and magnetic pressure on the solar wind velocity is analyses as well. The main difference is observed under high solar wind velocity. This is explained by different nature of high-speed flows during different stage of the solar activity cycle.