WIND IN SITU THERMAL NOISE MEASUREMENTS OF THE SOLAR WIND ELECTRON DENSITY AND TEMPERATURE OVER SOLAR CYCLE 23

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Since its launch in November 1994, the Wind spacecraft has been frequently observing the in-ecliptic solar wind upstream of the Earth's bow shock. The Thermal Noise Receiver from the Wind/WAVES instrument was specially designed to measure in situ the plasma thermal noise, from which the electron density and temperature can be accurately determined using the method of quasi-thermal noise spectroscopy. We present histograms of such measurements performed over a time span of more than nine years, encompassing almost the whole present solar cycle 23. Their variations with solar activity cycle and with different regimes of the solar wind will be highlighted and discussed.