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Analysis of MTOF solar wind data

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MTOF is a mass per charge spectrometer for solar wind ions flying on SoHO. It records every five minutes a mass spectrum. The detection efficiency of the instrument depends on the solar wind speed and on instrumental status. The latter is determined by two voltages that are set in a cycle every five minute. Analyzing the spectra obtained for different wind velocities and for all the existent voltages sets, we determine the best voltage combination to obtain the number of ions of a specified element that are registered by the instrument. To do that we have to take into account the charge distribution of the measured ions. This is given as a table in function of the wind velocity, that is measured by the Proton Monitor (PM) instrument. Then, we found the velocity range in which the precision of PM is the best.