



## **ASPERA-3 NPD analysis: a statistical study**

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The ASPERA-3 Neutral Particle Detectors (NPD-1 and 2) on board Mars Express are Energetic Neutral Atom (ENA) sensors using time-of-flight technique to resolve the energy of detected particles; pulse-height analysis is used to distinguish between hydrogen and oxygen. The instrument started collecting data from Jan. 12, 2004 and a significant data volume is now available. Data are pre-processed to remove UV contamination; time-of-flight spectra are fitted with simple analytical functions to obtain a set of parameters. The behavior of these parameters function of s/c position and attitude are then investigated. This study is intended to be an attempt to search for different ENA sources.