

## **Observations by the Sub-keV Atom Reflecting Analyzer (SARA) on board of Chandrayaan-1**

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### **Abstract**

The Sub-keV Atom Reflecting Analyzer (SARA) [1,2] instrument on board the Indian lunar mission Chandrayaan-1 was built to investigate the interaction of the Solar wind with the lunar surface and the plasma environment around the Moon. SARA consists of two complementary sensors: SWIM (Solar Wind Monitor) [3], a miniature ion mass analyzer measuring inflowing Solar wind, and CENA (Chandrayaan-1 Energetic Neutral Analyzer) [4], an imaging neutral atom mass spectrometer looking down to the lunar surface at sputtered or scattered neutral atoms. Both sensors were successfully commissioned on end of January 2009 and provide unique data. We present an update on the first few months of observations.

### **References**

- [1] Bhardwaj, A. et al. (2005) Journal of Earth System Sciences, 114 (No.6), 749-760
- [2] Barabash, S. et al. (2009) Current Science, 96, 4, 526, 2009
- [3] McCann, D. et al. (2007) Planetary and Space Science, 55 (No.9), 1190-1196.
- [4] Kazama, Y. et al. (2007) Planet. Space Sci. 55 (2007) 1518-1529.