



## **Evaluation of wave measurements in the Lunar environment with the SPEDE instrument on SMART-1**

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The Spacecraft Potential, Electron and Dust Experiment (SPEDE) was one of the instruments on the SMART-1 spacecraft, the European Space Agency's first Lunar mission. One of the operational modes of SPEDE was to measure wave intensities in the space plasma and how they vary around the Moon, which is sometimes located inside the Earth's magnetosphere. Because of telemetry limitations, SPEDE used extensive on-board data reduction. The on-board algorithms are analyzed and applied to Cluster solar wind data for comparison. The data are further analyzed statistically to look for systematic dependencies on spacecraft location or solar wind conditions. The initial results are inconclusive. We discuss the implications of the technical limitations as well as the possible influence of spacecraft disturbances on the measurements.