



A search for optical evidence for lightning on Venus with VIRTIS on Venus Express

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Lightning is known to occur on the atmospheres of Earth, Jupiter, Saturn, Uranus and Neptune, but although the occurrence of lightning in the Venusian atmosphere has been published several times in the past years, always on the basis of detected electromagnetic pulses, the subject is still controversial. It is generally agreed that an optical observation of the phenomenon would settle the issue. In this work we analyse the data collection of hyper-spectral images produced by the Visible and InfraRed Thermal Imaging Spectrometer (VIRTIS) on Venus Express, that has been observing the Venusian atmosphere continuously since 2006. A dedicated search algorithm for transient events was developed and a detailed analysis of the archive was performed in all wavelengths. The first preliminary analysis have been performed and we have proven that transient events can easily be identified in the data. Work is ongoing for optimizing search parameters and performing a statistical analysis. In this contribution, we will present a summary of the data analysis process and some of the preliminary conclusion in the lightning detection/nondetection.