



Analysis of spectral emissions associated with thunderstorm activity detected by ASIM

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The Atmospheric Space Interaction Monitor (ASIM) was successfully launched last April 2, 2018, to study lightning, transient luminous events of the atmosphere above thunderstorms, and terrestrial gamma-ray flashes. Here we present a preliminary analysis of data from the three photometers in the bands 180-235 nm, 337/5 nm and 777/5 nm, each sampling at unprecedented 100 kHz. We analyse the duration, rise and decay times and the peak values of each photometer in coordination with data from Earth Network global lightning detection system.

The goal of this work is to contribute to a future automatic tool for the analysis of the MMIA photometer signals and to be able to identify possible optical signatures of distinct events such as jets, sprites and terrestrial gamma-ray flashes (TGFs).