

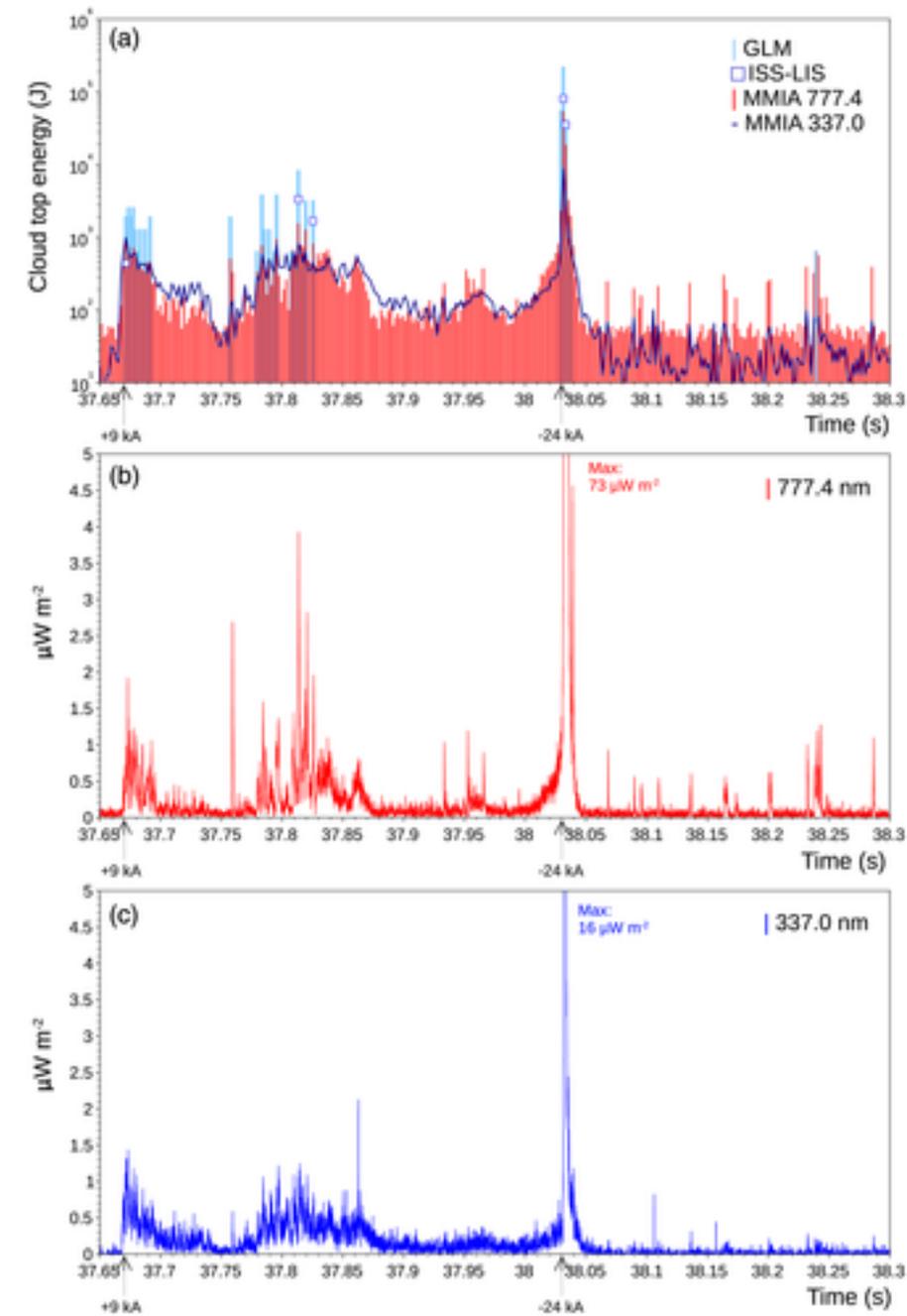
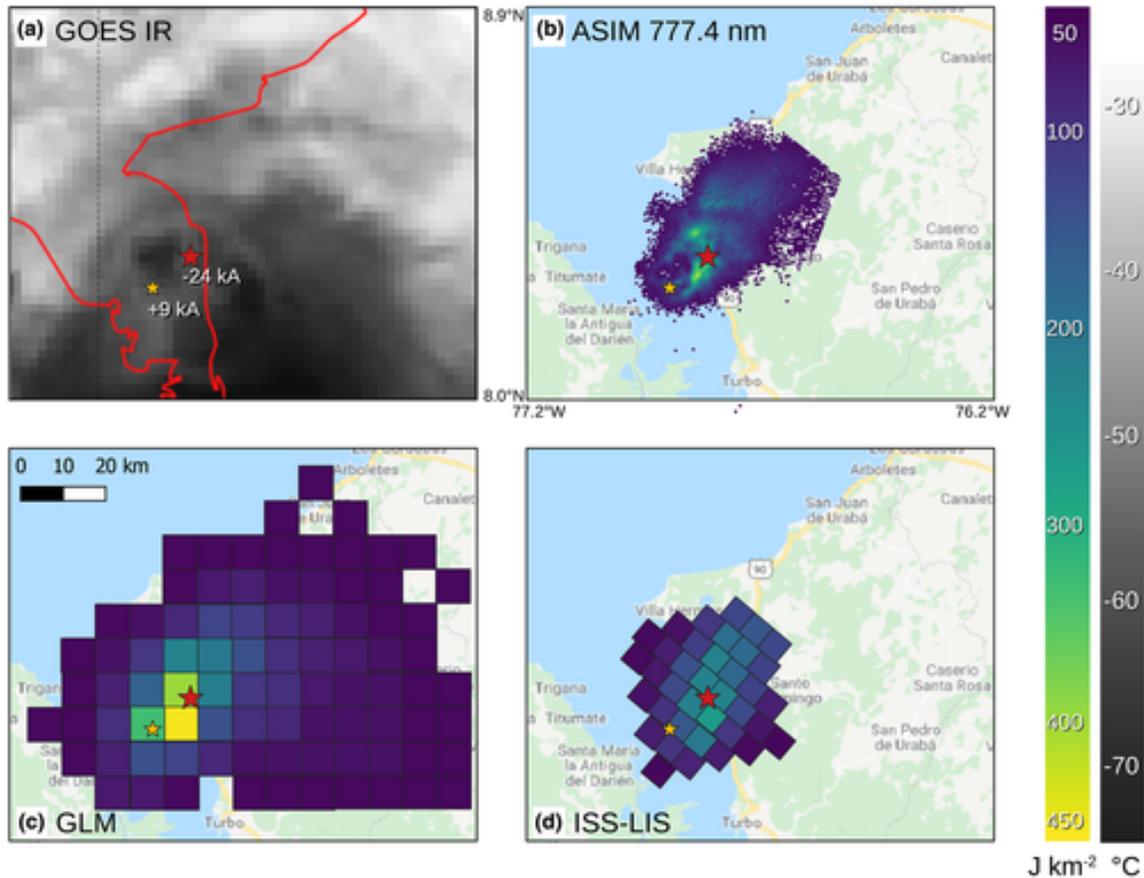
# **Latest contributions by the UPC and LAERO**

Joan Montanyà  
Eric Defer

February 9, 2021

# Comparison of High-Speed Optical Observations of a Lightning Flash From Space and the Ground

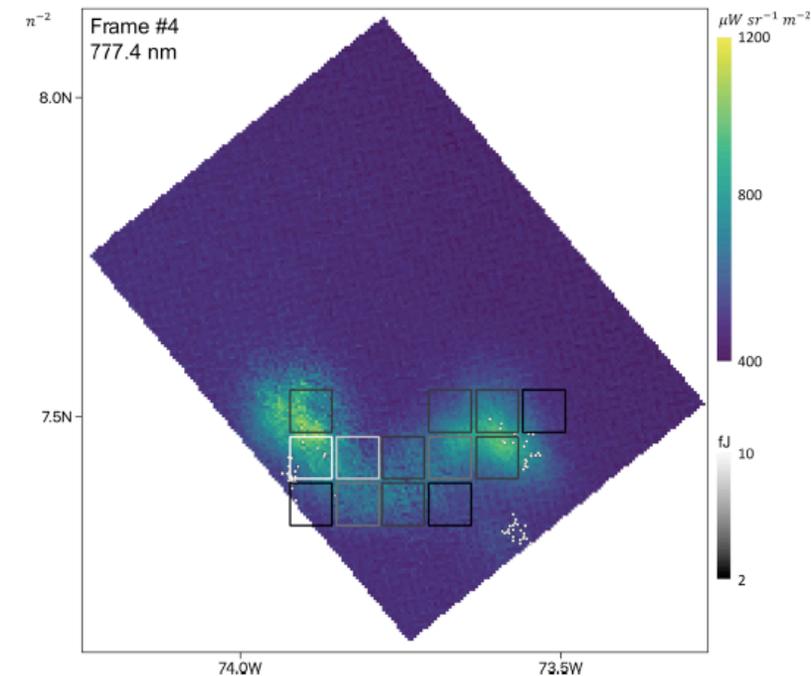
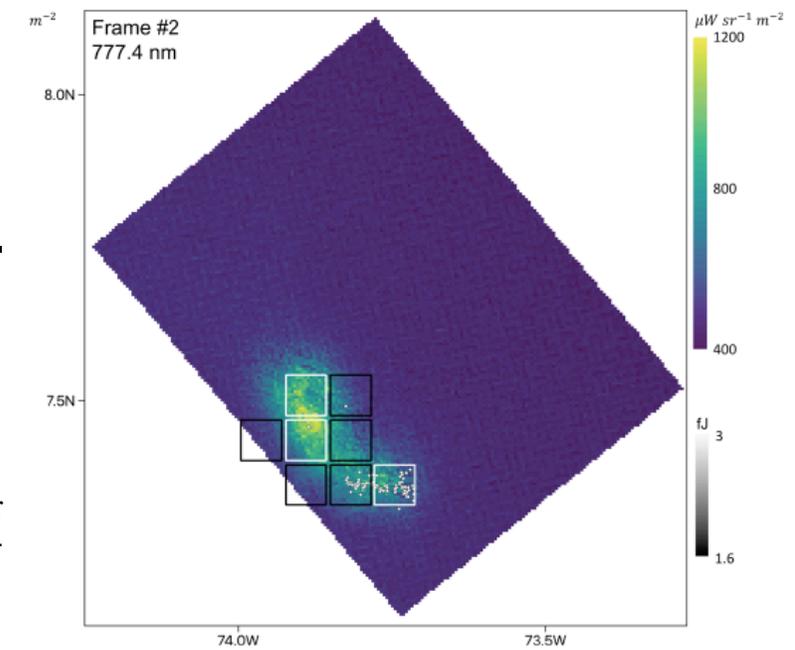
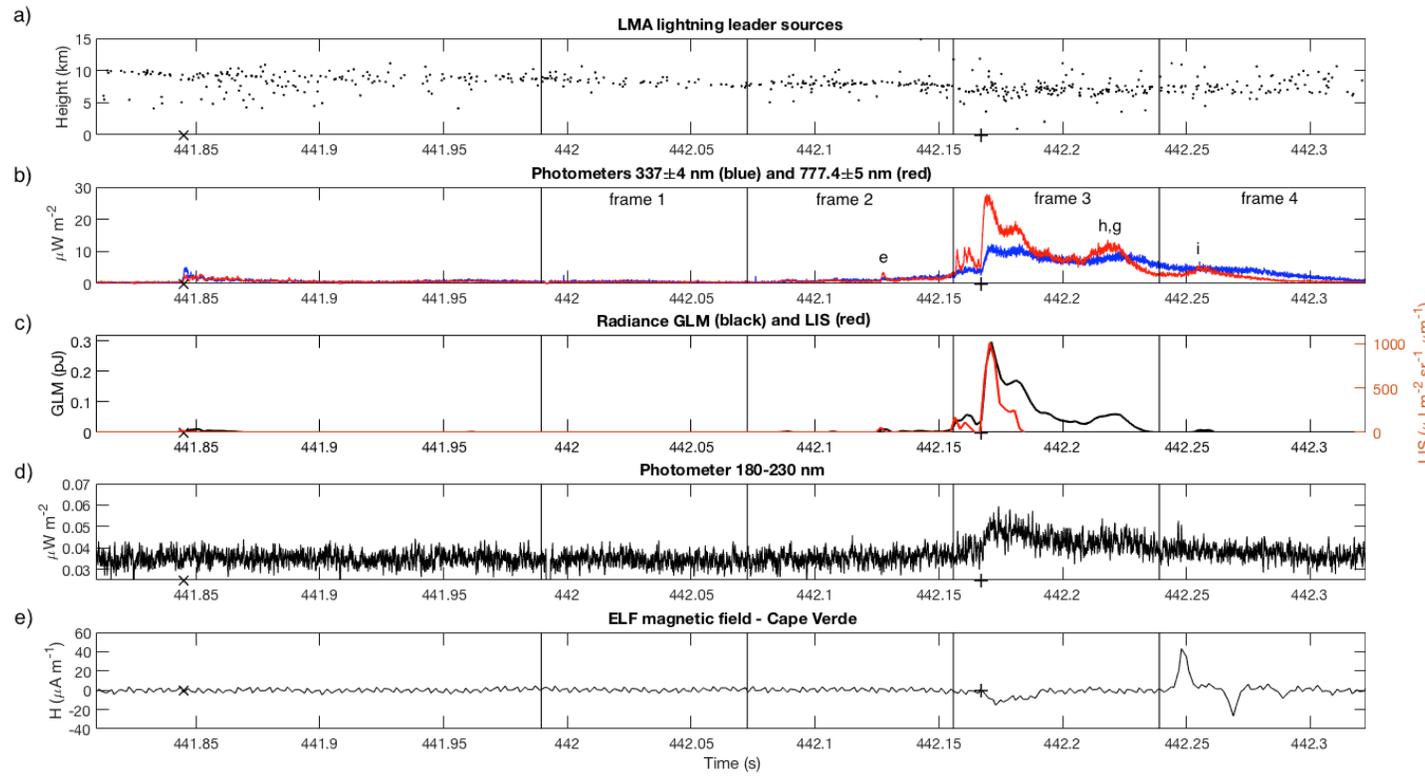
By Oscar A. van der Velde Joan Montanyà Torsten Neubert Olivier Chanrion Nikolai Østgaard Steven Goodman Jesús A. López Ferran Fabró Victor Reglero



Accepted (JGR Atmospheres)

# A simultaneous observation of lightning by ASIM, Colombia-Lightning Mapping Array, GLM and ISS-LIS

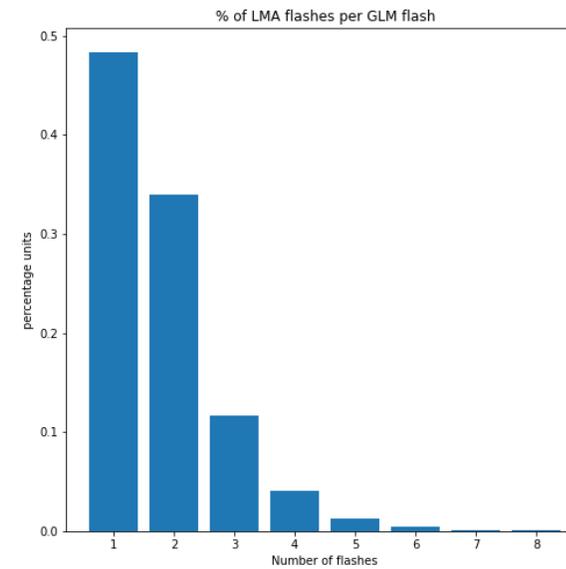
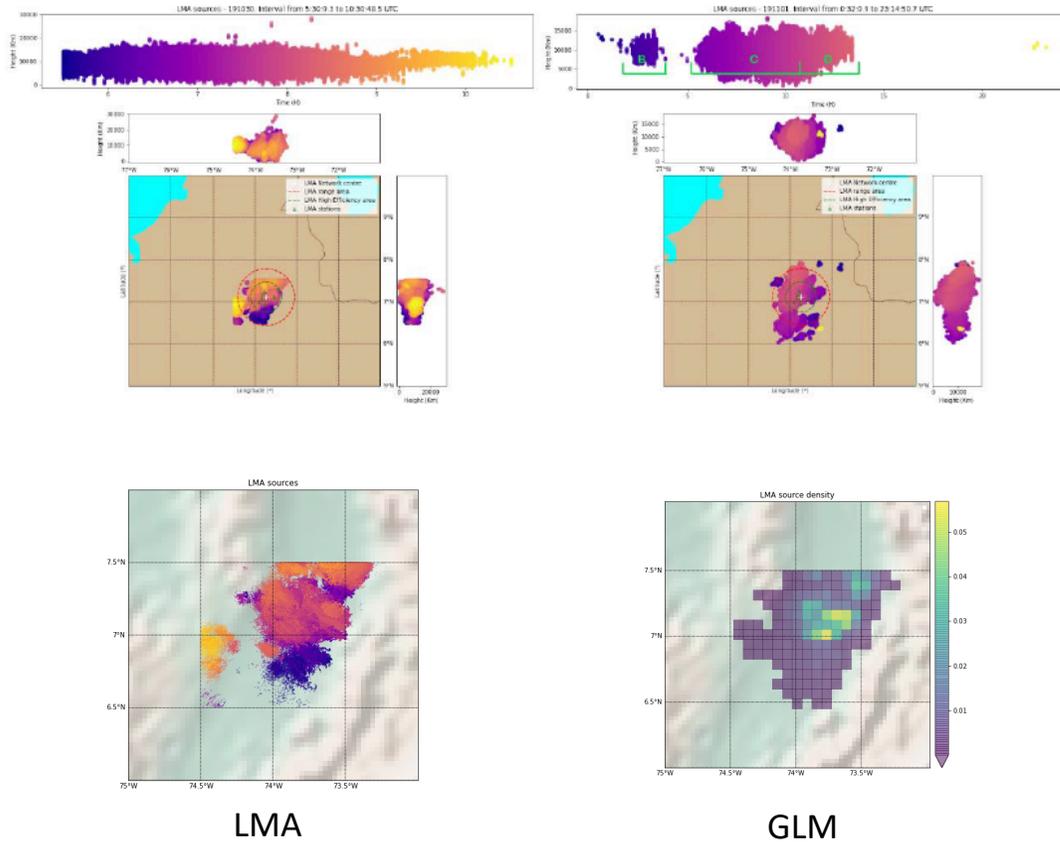
Joan Montanyà<sup>1</sup>, Jesús A. López<sup>1</sup>, Carlos A. Morales Rodriguez<sup>2</sup>, Oscar A. van der Velde<sup>1</sup>, Ferran Fabró<sup>3,1</sup>, Nicolau Pineda<sup>3,1</sup>, Javier Navarro-González<sup>4</sup>, Víctor Reglero<sup>4</sup>, Torsten Neubert<sup>5</sup>, Olivier Chanrion<sup>5</sup>, Steven J. Goodman<sup>6</sup>, Nikolai Østgaard<sup>7</sup>, Alfonso Ladino-Rincon<sup>8</sup>, David Romero<sup>1</sup>, Glòria Solà<sup>1</sup>, Ricard Horta<sup>1</sup> and Modesto Freijó<sup>1</sup>



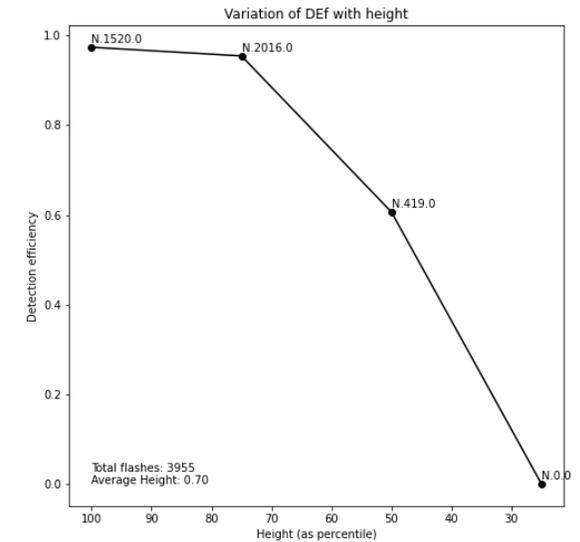
UPC Master thesis

## Tools for validation of the Lightning Imager sensor on the 3rd generation of the METEOSAT weather satellite

By Nuria Partal



Some GLM flashes contain multiple LMA flashes



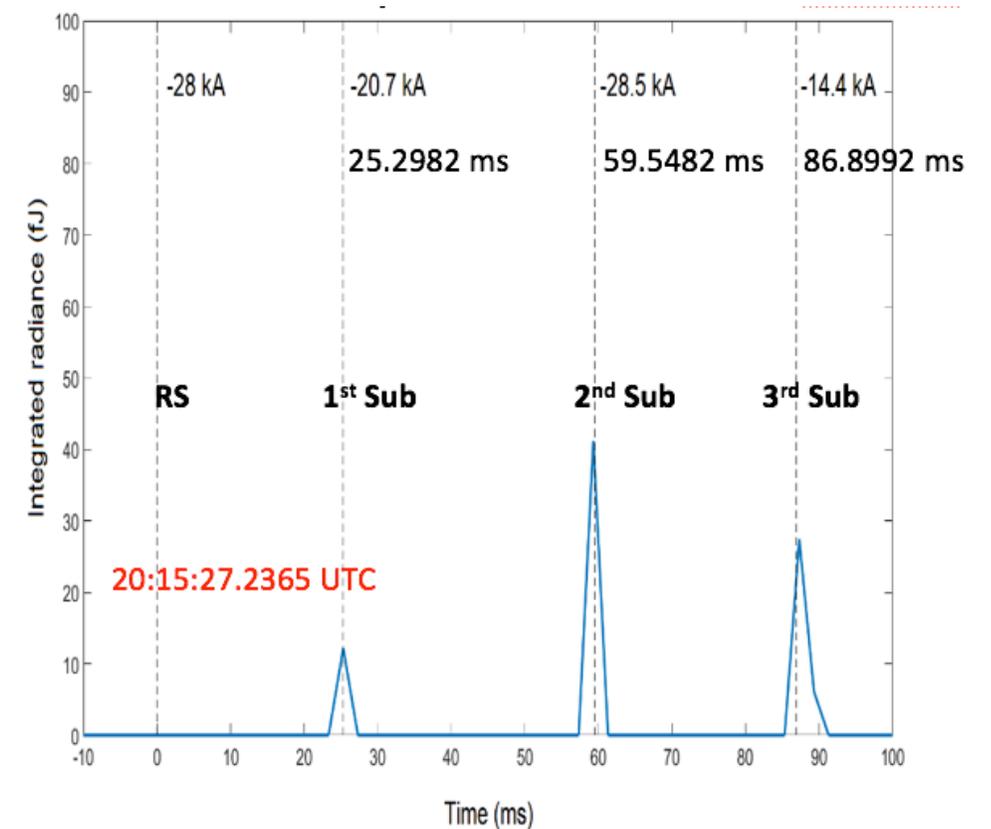
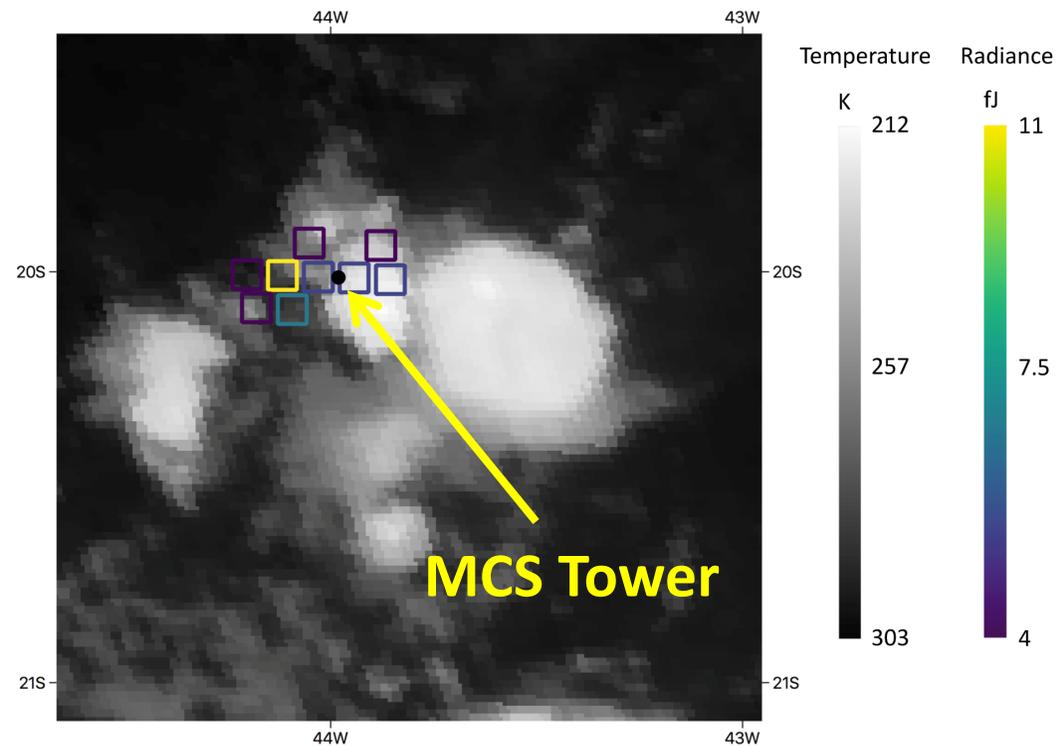
DE decays when the flash occurs deeper in the cloud

### GLM and STARNET/LINET/Tower measurements in South America: Cross Validation and IC/CG ratio

By Carlos Morales, Joan Montanyà and Silverio Visacro

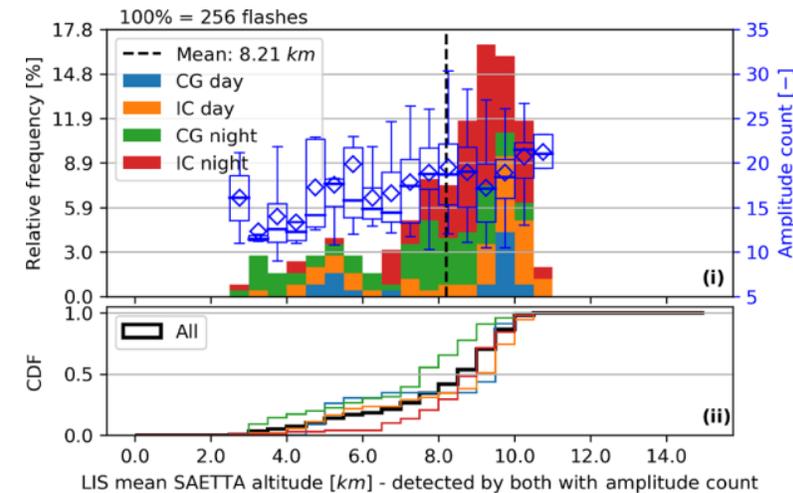
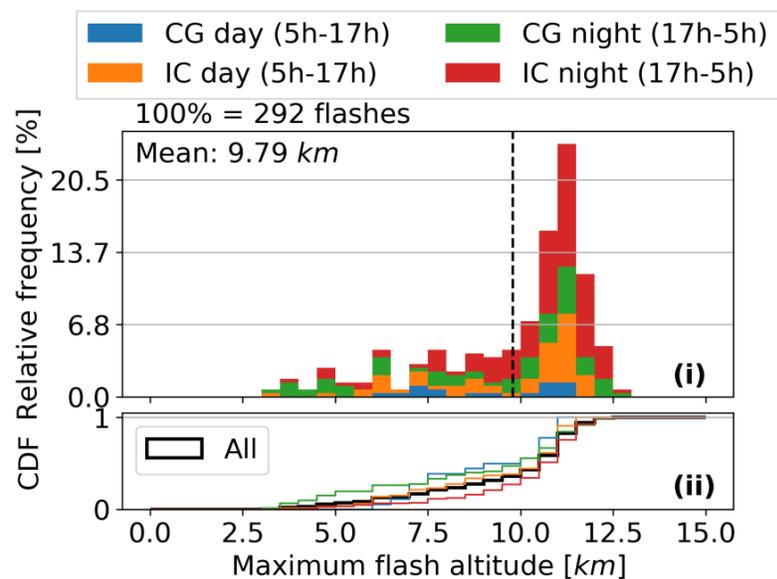
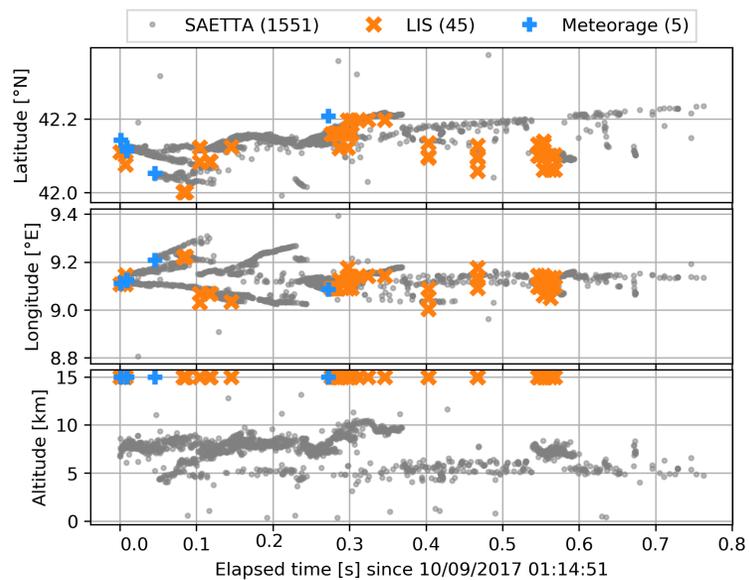
We compared GLM detections associated to lightning flashes to Morro do Cachimbo tower in Brazil where currents are measured.

Case of 20190120



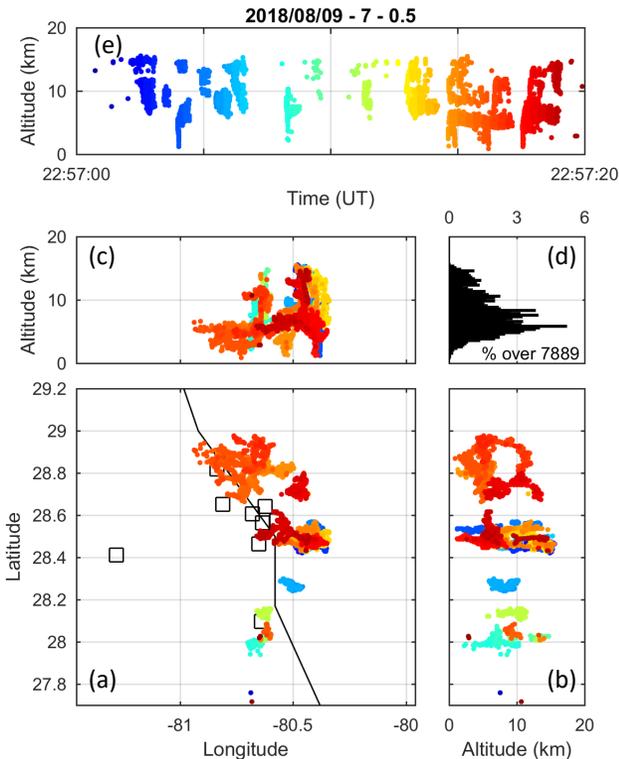
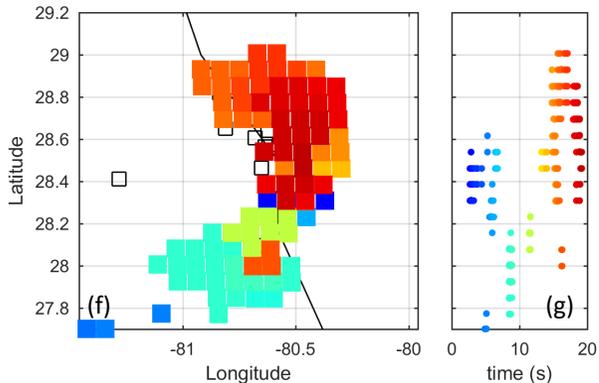
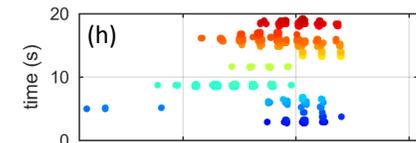
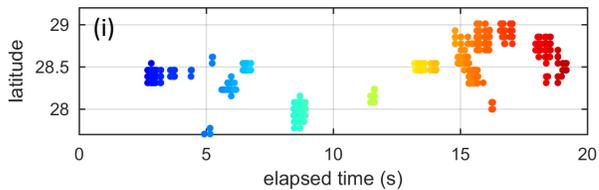
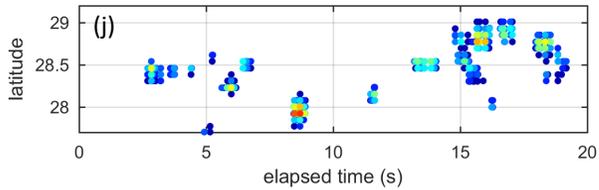
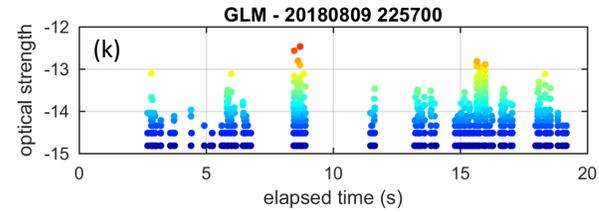
- Understanding of the optical signal relative to the flash structure and lifecycle
- Algorithms merging lightning observations recorded by multiple detection techniques

[Erdmann et al., 2020 ; PhD Thesis]



• Studying GLM records against LMA and NLDN records

[Erdmann et al., 2020 ; PhD Thesis; Morvais, M2 Thesis, 2019]



GLM-LMA comparison at Kennedy Space Center

(CNES SOLID project;  
F. Morvais, M2 student;  
F. Erdmann, PhD student)

