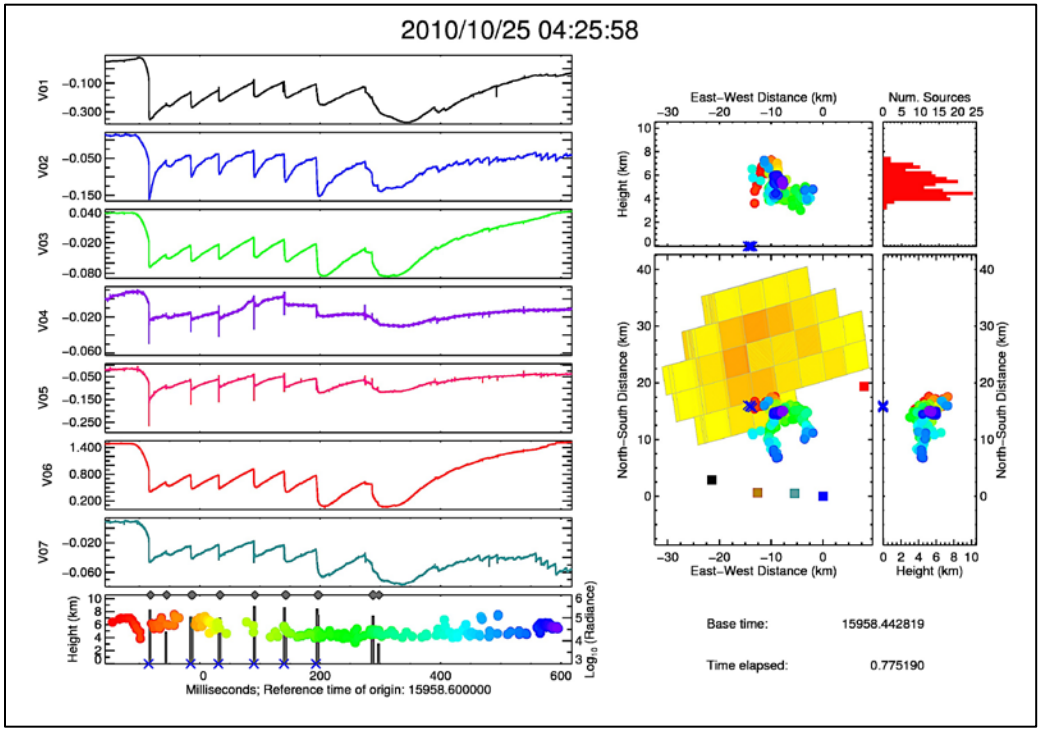
Toward an Operational Use of Stroke Level Lightning Data in Severe Weather Forecasting

- Ongoing research using lightning data in the context of severe weather forecasting is promising.
- However, only flash level data is used – but not all flashes are equal, energetically.
- GLM will provide data that correspond to strokes (called groups in GLM nomenclature).
- We will use existing LIS data and ground based electric field networks (e.g., HAMMA) to relate optical measurements to strokes, which are more closely related to the electrical energy output of a storm.
- Ultimately, we seek to establish a new paradigm in which GLM data can be better used to relate electrical energy to storm dynamics.



A single lightning flash observed by HAMMA (colored waveforms) and LIS (gray bars and yellow/red squares). The return strokes are detected by each system – this is the most energetic process in a flash.

Explore how to best use GLM data in relation to storm development

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