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## **Lightning characteristics of typhoon Faxai and typhoon Hagibis observed by Tokyo LMA**

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### **Abstract**

The spatial and temporal distribution of total lightning was examined in typhoon Faxai and typhoon Hagibis of 2019. These typhoons passed over Tokyo metropolitan area, Japan in September and October, 2019, respectively. We succeeded in observing total lightning in the typhoons by Lightning Mapping Array (Tokyo LMA). Typhoon Faxai caused wide range of power outage due to strong wind. The maximum wind speed was 43.4 m/s at Kouzushima observed by Automated Meteorological Data Acquisition System (AMeDAS) operated by Japan Meteorological Agency (JMA). Lightning activity was active before and after the central pressure of the typhoon became minimum. The radial distribution of LMA sources showed two peaks: the first peak was in the inner 30 km and the second peak was in the outer rainbands 130-150km from the center. Most of LMA sources were observed in the first and the fourth quadrants. As opposed to typhoon Faxai, typhoon Hagibis had sparse lightning flashes. At the presentation, we will show results of comparison on lightning characteristics between typhoon Faxai and typhoon Hagibis.

### **Topic Areas**

Cloud Processes, Thunderstorm Electrification and Lightning

### **Submission Format**

No preference