## What makes FAEs appear?

Recently, small auroral emission blobs were identified in auroral all-sky camera images from the Kjell Henriksen observatory, Svalbard. These were named Fragmented Aurora-like Emission(s) (FAEs) by the authors ofthe very first study to characterise about 300 FAEs. They reported on their size, shape, type, drift, and emissions, and further discussed the potential generation mechanism. A second study analysed the fine scaly dynamics of FAEs and focused on constraining the potential generation mechanism. Since only a few days with FAE occurrences were found and analysed for the first and second study, the overall ionospheric conditions favourable to their formation are still an open question. This project will extend the FAE event list with another handful of new days and therefore can focus on describing the ionospheric and solar wind driving conditions to answer the question on which conditions are favourable and/or necessary for FAE formation. This can further include the temporal relationship of FAEs and substorms.

First FAE publication: https://angeo.copernicus.org/preprints/angeo-2020-45/
Second FAE publication: https://doi.org/10.5194/angeo-2020-95

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