

## AGU annual meeting 2023 report

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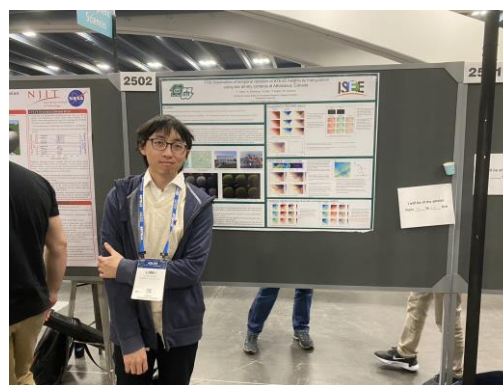
I am glad to attend American Geophysical Union (AGU) annual meeting which was held in San Francisco during December 11<sup>th</sup> to 15<sup>th</sup>. The meeting attract many Scientists, students and contributors to share their discoveries and exchange opinion about their researches. During the meeting I enjoyed listening to excellent presentations, meeting old friends and making new friend, and making presentation about our research. On the last day of the meeting, I made a poster presentation with the title 'First observation of temporal variation of STEVE heights by triangulation using two all-sky cameras at Athabasca, Canada'. The Strong Thermal Emission Velocity Enhancement (STEVE) is a purplish westward surging arc, which become a popular topic among scientific community since 2016. In my presentation I introduced a unique campaign observation of a STEVE event in Canada in the last year. For the first time we estimate the temporal variation of STEVE altitudes in 1-min resolution by triangulation using two synchronized Nikon D610 all-sky cameras. Our result shows that the height of STEVE arc was stable at ~150-170 km for most time, while a short elevation from ~160 km to ~200 km of the STEVE arc km is also found. The altitude of the green fence structures was stable at ~110 km. The upward motion of the STEVE arc was not aligned with local magnetic field line, suggesting the existence of an  $E \times B$  equatorward drift of the STEVE. We also find that STEVE arc moved closer to the 630 nm emission when it was at a higher altitude at ~200 km. I have finished the first version of the manuscript and plan to submit it soon.

In my poster presentation, I talked to about ten people and received many valuable suggestions. Some listeners commented that our estimated altitude is

consistent with some other observations and simulations. Many people also suggested to compare the triangulation between different channels of color images. Thus I plan to add some detail comparison of green and blue channels between two cameras in the future. I would like to express my sincere thank to CICR, ISEE for supporting me to join the conference. It was an wonderful experience for me to talk with researchers all over the world, advertise our work and receive valuable suggestions and inspirations.



Pic1 Lobby of the conference



Pic2 My poster presentation

&lt;Supervisor' s name&gt;

塩川 和夫 (SHIOKAWA Kazuo)