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Long-term changes in the ionospheric response to geomagnetic activity

As part of my Ph.D. program, I stayed at Kyushu University in Fukuoka, Japan, from September 16 to November 25, 2024. During my time there, Professor Huixin Liu guided my research on the variations in the ionospheric response to geomagnetic activity over time.

The goal of my work in Fukuoka was to better understand and characterize the long-term variations in the ionospheric response to geomagnetic activity. I have applied and evaluated several methods, as well as numerous geomagnetic indices. The ionospheric foF2 data we were using comes from Juliusruh; however, the results are also confirmed by data from other stations at the same geomagnetic latitude as Juliusruh.

Having the opportunity to discuss the matter directly with my supervisor enabled me to establish better methodologies and a clearer direction for my research plan. This led to intriguing results that are currently being discussed and developed for publication. Participating in seminars and engaging in discussions with students, postdoctoral researchers, and other guests within the working group provided me with valuable insights into the work being conducted at the hosting institution.

During my time at Kyushu University, I lived in the Harmony Student House, which is located on campus, just 1.5 kilometers from my office. The university campus offers a variety of dining options, including cantinas and convenience stores, as well as extensive recreational facilities such as a gym and a swimming pool. Additionally, the ocean is only a 25-minute walk from the campus.

The working group and department organized various social events, including group runs, and evening gatherings. A large shopping mall and the train station are accessible within 15 minutes by bus. The route from Fukuoka Airport to the campus is almost direct, and local transport provides easy access to Fukuoka city. Other cities of interest can be quickly reached by train from Fukuoka's main station.

I had the incredible opportunity to participate in the Fukuoka City Marathon, an event I had long dreamed of completing.

During my stay at Kyushu University, I achieved remarkable scientific results that contributed to my Ph.D objectives. Additionally, I developed important personal and professional skills, including collaboration with international colleagues and adapting to different working styles. Overall, my time at Kyushu University was transformative, offering me invaluable experiences that will benefit my career and personal growth for years to come.



Photo of Prof. Huixin Liu's (first from the left) working group during running training. I am second to the left.