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Report of attending 13th IWGGMS workshop

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Carbon dioxide (CO_2) and methane (CH_4) are potent greenhouse gases (GHGs) that contribute to human-induced climate change. Understanding the evolution of the CH₄ budget as well as CO₂ has implications for future climate emission scenarios and mitigation options to avert further global warming.

The 13^{th} International Workshop on Greenhouse Gas Measurements from Space (IWGGMS) was held on 6-8 June, 2017, at the University of Helsinki in Helsinki, Finland. The goal of the workshop is to review the state of the art in remote sensing of CO₂, CH₄, and other greenhouse gases from space including the current satellite missions, missions to be launched in the near future, emission hot spots on regional and global scales, process studies and interactions of carbon cycle and climate, pre-flight and on-orbit instrument calibration techniques, retrieval algorithms and uncertainty quantification, validation methods and instrumentation, related ground-based, shipboard, and airborne measurements, and flux inversion from space based measurements.

My current research topic is ground-based CO₂ column concentration observation and analysis. This research can not only provide a verification of the data of greenhouse gas from satellite but also play an important role in the observations/monitoring of greenhouse gas emission. I attended two conference: one is the workshop held on June 6-8, and the other one is the 9th GOSAT RA PI Meeting held on June 9. In the first conference, I made a poster presentation titled "Ground-based measurement of column-averaged mixing ratios of carbon dioxide in Tokyo by a portable optical spectrum analyzer".

During this meeting, I have talked a lot with many professors on related areas, and have a clearer understanding Duration of the stay : $2017/06/05 \sim 06/11$ Name & country of the workshop : 13^{th} International Workshop on Greenhouse Gas Measurements from Space (IWGGMS), Finland

about the area I am now studying on. As a result, with the help of the workshop, my horizon is broadened and I am more interested in the current research. I am determining to work harder in the future.

Finally, Thanks for the support of the center for International Collaborative Research (CICR) / Director's Leadership fund.



Figure .1 Group photo of the workshop



Figure .2 Photo with my poster

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