カナダ・アサバスカにおける 2023 年 9 月のサブオーロラ帯オーロラの PBASE キャンペーン観測の初期結果

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Preliminary results from the first PBASE campaign observation of subaurorallatitude auroras at Athabasca, Canada, on Sept. 2023

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The international joint research of geospace variability by combining multi-point ground and satellite observations and modeling (PBASE program) has been launched in December 2022 as a 7-year program of Japan Society for the Promotion of Science (Grant-in-Aid for International Leading Research, 22K21345, https://www.isee.nagoya-u.ac.jp/dimr/PBASE/). The PBASE program aims to contribute to understanding and predicting geospace variabilities by combining ground-based and satellite observations and modeling, covering a wide area in both altitude and latitude/longitude directions. The program plans to coordinate campaign observations using ground-based instruments in winter seasons in 2023, 2024, ans 2025. In this presentation, we will report a preliminary result obtained from the first PBASE ground-satellite campaign observation of subauroral-latitude auroras at Athabasca, Canada, on September 8-14, 2023. We install two Nikon color cameras at the AUGO-I site (54.71N, 246.69E, magnetic latitudes: ~62 degree) in the Athabasca University campus and the AUGO-II site (54.60N, 246.36E) which is ~25 km separated, in order to make a triangulation of auroral structures, such as STEVE and SAR arcs, typically observed at subauroral latitudes. We also operate an all-sky airglow imager of the Optical Mesosphere Thermosphere Imagers (OMTIs) and an EMCCD camera at AUGO-II, and a low-cost ZWO camera at AUGO-I. Conjugate observation with the Arase satellite is planned at 13:00 UT on September 8, 12:00 UT on September 10, and 08:00 UT on September 15.