
Symposium (Oral) | Symposium | Think about applied physics in space

[10p-Z16-1~8]Think about applied physics in space

Kay Domen(Yushi Sozo), Takahiro Nishimoto(Shimadzu)

Thu. Sep 10, 2020 1:30 PM - 5:15 PM Z16

△ : Presentation by Applicant for JSAP Young Scientists Presentation Award

▲ : English Presentation

▼ : Both of Above

No Mark : None of Above

1:40 PM - 2:20 PM

[10p-Z16-2]Global environment monitoring using the ground stations, ships, aircraft and satellites and its future prospects

○Nobuko Saigusa¹ (1.NIES)

Keywords:Global environment monitoring, Climate change, Greenhouse gas

The Paris Agreement established a long-term goal by achieving a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases (GHGs) in the second half of this century. To monitor and evaluate the impacts of climate change measures for implementing the Paris Agreement, accurate knowledge of natural and anthropogenic sources and sinks is essential. There has been an increase in the number of observational platforms, such as satellites, aircraft, ships, and ground stations, for monitoring the concentrations of atmospheric GHGs. The reliability of evaluations of sources and sinks of GHGs has been improved in recent years by combining observed data with advanced analysis systems such as "top-down" (with atmospheric observations and inverse modeling) and "flux upscaling" (with surface flux/emission data and upscaling) methods. International cooperation is essential to provide the data and knowledge to stakeholders in time with such activities as the Global Stocktake Process under the Paris Agreement.