An International Cooperation Practice on the Analysis of Carbon Satellites data

Lianchong Zhang\textsuperscript{1,2}, Guoqing Li\textsuperscript{1,2}, Jing Zhao\textsuperscript{1,2}, and Jing Li\textsuperscript{1,2}
\textsuperscript{1}Aerospace Information Research Institute, Chinese Academy of Sciences, China (zhanglc@radi.ac.cn)
\textsuperscript{2}National Earth Observation Data Center, Beijing, China (zhanglc@radi.ac.cn)

Carbon satellite data is an essential part of the greenhouse observation and plays a critical role in global climate change assessment. Existing carbon data analysis e-science platforms are affected by restrictions in distributed resource management and tightly coupled service interoperability. These barriers currently offer no support for facilitating cross-disciplinary exploration and application, which have hindered the development of international cooperation. From 2018, the Cooperation on the Analysis of carbon SAtellites data (CASA), a new international scientific programme, was approved by the Chinese Academy of Sciences (CAS). So far, more than 9 research institutions have been integrated under this cooperation. The result is demonstrated in the global XCO2 dataset based on the Tansat satellite.