

IUGONET プロジェクトで開発された解析ソフトウェア Data analysis software developed by the IUGONET project

田中 良昌^{1*}, 新堀 淳樹², 堀 智昭³, 小山 幸伸⁴, 阿部 修司⁵, 梅村 宜生³, 八木 学⁶, 上野 悟⁷, 佐藤 由佳¹, 谷田貝 亜紀代²
Yoshimasa Tanaka^{1*}, Atsuki Shinbori², Tomoaki Hori³, Yukinobu Koyama⁴, Shuji Abe⁵, Norio UMEMURA³, Manabu Yagi⁶,
Satoru UeNo⁷, Yuka Sato¹, Akiyo Yatagai²

¹ 国立極地研究所, ² 京都大学生存圏研究所, ³ 名古屋大学太陽地球環境研究所, ⁴ 京都大学大学院理学研究科附属地磁気世界資料解析センター, ⁵ 九州大学 国際宇宙天気科学・教育センター, ⁶ 東北大学理学研究科惑星プラズマ・大気研究センター, ⁷ 京都大学大学院理学研究科附属天文台

¹National Institute of Polar Research, ²Research Institute for Sustainable Humanosphere (RISH), Kyoto University, ³Solar Terrestrial Environment Laboratory, Nagoya University, ⁴Data Analysis Center for Geomagnetism and Space Magnetism, Kyoto University, ⁵International Center for Space Weather Science and Education, Kyushu University, ⁶Planetary Plasma and Atmospheric Research Center, Graduate School of Science, Tohoku University, ⁷Kwasan & Hida Observatories, School of Science, Kyoto University

The Inter-university Upper atmosphere Global Observation NETWORK, IUGONET, is an inter-university project by the National Institute of Polar Research, Tohoku University, Nagoya University, Kyoto University, and Kyushu University to build the infrastructure to access, visualize, and analyze the upper atmospheric data accumulated by the five institutions. In this presentation we introduce the data analysis software, UDAS (iUgonet Data Analysis Software), developed by the IUGONET project.

It is essential to comprehensively analyze various kinds of observational data to clarify the mechanism of long-term variations in the upper atmosphere. However, the observational data are individually archived at each institution and the file format of the data is usually different from each other. Since it is difficult to unify the file format because of a variety of data type and limited human resources, we developed data analysis software that can handle the various file formats. UDAS is a plug-in software of TDAS (THEMIS Data Analysis Software suite) that is written in IDL (Interactive Data Language). Once the data providers make the procedures for loading their data, UDAS can download the data files onto the user's computer through the internet and load variables to the IDL workspace. Furthermore, UDAS provides GUI for beginners of IDL. The formal version of UDAS has been released at the IUGONET website in February, 2012.

キーワード: メタデータ, 超高層大気, 長期変動, 解析ソフトウェア, データベース
Keywords: metadata, upper atmosphere, long-term variation, analysis software, database