
[JJ] Evening Poster | A (Atmospheric and Hydrospheric Sciences) | A-AS Atmospheric Sciences, Meteorology & Atmospheric Environment

[A-AS07]Stratosphere-troposphere Processes And their Role in Climate

convener:Shingo Watanabe(Japan Agency for Marine-Earth Science and Technology), Yoshio Kawatani(Japan Agency for Marine-Earth Science and Technology), Takashi Sekiya(国立研究開発法人 海洋研究開発機構, 共同), Kaoru Sato(Department of Earth and Planetary Science, Graduate School of Science, The University of Tokyo)

Wed. May 23, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

The Stratosphere-troposphere Processes And their Role in Climate (SPARC) is one of the major projects of the World Climate Research Programme (WCRP), and is characterized by its focus on chemical and dynamical coupling in the stratosphere and troposphere. In this session, we welcome presentations on various processes in the stratosphere and troposphere.

[AAS07-P05]Seasonal variation of Thorpe scale and energy dissipation rate derived from radiosonde observations at Syowa Station in the Antarctic

*Masashi Kohma¹, Kaoru Sato¹, Yoshihiro Tomikawa², Koji Nishimura², Toru Sato³ (1.Department of Earth and Planet Science, Graduate School of Science, The University of Tokyo, 2.National Institute of Polar Research, 3.Department of Communications and Computer Engineering, Graduate School of Informatics, Kyoto University)

The energy dissipation rate is a fundamental parameter describing atmospheric turbulence. Clayson and Kantha (2008) and following studies showed that radiosondes with a vertical resolution of several meters can detect at least partially overturning structures. Energy dissipation rates were estimated utilizing these radiosonde data based on Thorpe's method (1977) which is commonly used for oceanic turbulence parameters. In the present study, we will show estimations of energy dissipation rates from radiosonde, and compare it with the estimation from a radar at Syowa Station.