



The SOLA Award in 2014

We are pleased to announce that the SOLA Award in 2014 will be presented to Drs. Toru Miyama and Takuya Hasegawa for their outstanding paper as follows:

Impact of Sea Surface Temperature on Westerlies over the Western Pacific Warm Pool: Case Study of an Event in 2001/02

by Toru Miyama¹, and Takuya Hasegawa²

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This study examines a tropical western Pacific westerly wind event observed in 2001/02 boreal winter, which contributed to a subsequent El Niño development in 2002, with the use of both regional atmospheric and oceanic models. From regional atmospheric model experiments, the authors show that zonal sea surface temperature gradient in the equatorial western Pacific, which is caused by cold water upwelling to the north of New Guinea and the eastward extension of warm pool, locally reinforced the surface westerly winds. They estimate that this local SST gradient accounts for the half of the westerly anomaly. Through regional ocean model experiments, they further present triggering of an oceanic Kelvin wave by the intensified surface westerly winds, highlighting the role of regional sea surface temperature gradient in a subsequent El Niño development. These numerical experiments are well designed and make a strong case for their hypothesis. This study reveals a unique air-sea interaction, and a variety of applications are expected to emerge, including an improved understanding and prediction of El Niño development and a unique air-sea coupled mode in the western Pacific warm pool. Therefore, the Editorial Committee of SOLA highly evaluates the excellence of the authors' study.

Tetsuya Takemi
Disaster Prevention Research Institute, Kyoto University
Chief Editor of SOLA
on behalf of the Editorial Committee of SOLA
Meteorological Society of Japan

