## **COVER LETTER**

To: SOLA Chief Editor Center for Computational Sciences University of Tsukuba Tsukuba 305-8577, JAPAN E-Mail: sola@sakura.cc.tsukuba.ac.jp

## Dear Sirs,

I am sending herewith a copy of the manuscript, which I would like to submit to SOLA, the Electronic Journal of the Meteorological Society of Japan.

The paper is entitled:

Vertical profiles of snow and rain in Tokyo, Japan, examined by Micro Rain Radar (MRR) by Tomoki Koshida, Shin Miyazaki, Taikan Oki, Shinjiro Kanae, Kei Yoshimura and Masahiro Koike

Copy of the Abstract:

This study used a Micro Rain Radar (MRR) system installed on the roof of the Institute of Industrial Science at the University of Tokyo to examine precipitation on 31 December 2004. A passing cyclone from the southern coast of Japan had brought snowfall that had then changed to rainfall exceeding 6 mm/hour. The MRR is a low-cost, K-band Doppler radar system that can detect vertical velocities using Doppler radar reflectivity. Typically, MRR has been used to observe rainfall, and there are no previous reports of MRR examinations of snow and rain clouds, especially in an urban area. In this paper, we report on MRR-based determinations of the cloud properties that brought snow cover to Tokyo in late 2004. This study shows that vertical spectral observations by MRR are useful in distinguishing snow and rain.

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I hereby certify that this paper consists of original, unpublished work which is not under consideration for publication elsewhere.

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The original manuscript and figures will be transferred, following the instruction by the Editorial Committee when the paper is accepted. I hope your favorable consideration for publication to SOLA. Sincerely,

Tomoki Koshida

Attachment: PDF files of the manuscript and three supplements.