

## 北極スバルバルにおける雲・エアロゾルの地上リモートセンシング観測 Ground-based remote sensing of clouds and aerosol in the arctic Svalbard

塩原 匡貴<sup>1\*</sup>; 矢吹 正教<sup>2</sup>; 久慈 誠<sup>3</sup>; 鷹野 敏明<sup>4</sup>; 岡本 創<sup>5</sup>  
SHIOBARA, Masataka<sup>1\*</sup>; YABUKI, Masanori<sup>2</sup>; KUJI, Makoto<sup>3</sup>; TAKANO, Toshiaki<sup>4</sup>; OKAMOTO, Hajime<sup>5</sup>

<sup>1</sup> 国立極地研究所, <sup>2</sup> 京都大学生存圏研究所, <sup>3</sup> 奈良女子大学大学院自然科学系, <sup>4</sup> 千葉大学大学院工学研究科, <sup>5</sup> 九州大学応用力学研究所

<sup>1</sup>National Institute of Polar Research, <sup>2</sup>Research Institute for Sustainable Humanosphere, <sup>3</sup>Division of Natural Sciences, Faculty, Nara Women's University, <sup>4</sup>Chiba University Graduate School of Engineering, <sup>5</sup>Kyushu University Research Institute for Applied Mechanics

Ground-based remote-sensing measurements for aerosol and clouds using Sky-Radiometer, Micro-Pulse Lidar (MPL) and All-Sky Camera have been performed continuously in Ny-Alesund, Svalbard on a long-term basis since early 2000's. Further in addition, several new measurements have started with a polarization MPL in August 2013 and a 95GHz Doppler cloud radar in September 2013 for cloud microphysics and phase classification, and a dual frequency microwave radiometer in June 2014 for precipitable water and liquid water path. In this paper, preliminary results from those remote-sensing measurements will be presented in regard to physical characteristics of clouds, aerosol and water vapor, and the relationship in their interaction.