Abstract Template for the Quadrennial Ozone Symposium 2021

(Times New Roman 16, bold, centered)

Hana Lee1, Nayun Kim2, DhaHyun Ahn1, and Jhoon Kim1 (Times New Roman 12, normal, centered)

1Yonsei University, Korea, 2Genicom Co, Ltd., Korea (Times New Roman 11, normal, centered)

**※ Deadline for abstract submission is May 31, 2021**

* Abstracts must be in English.
* **The abstract template is provided below**. The abstracts that will not conform to the template may be rejected.
* It is recommended to submit the abstract in electronic form via the conference website (‘abstract submission’ link).
* The submitted abstract must be a **Microsoft Office Word file (\*.doc, \*.docx) and PDF file**.

All submitted abstracts will be reviewed by the Local Organizing Committee / Scientific Programme Committee. Based on their scientific quality and relevance to the conference topics, the abstract will be either accepted for publication in the Book of Abstracts or rejected.

**Abstract template**

* *Paper size*: A4
* *Margins:* Top: 3 cm , Bottom: 2.5 cm; Left and Right: 2 cm in the paper size. Please assure correct use of the margins.
* *Font*:

- Title: 16 pt, Bold, centered

- Authors names: 12 pt, Normal, centered/ Affiliations: 11pt, Normal, centered

- Abstract body: 12 pt, justified left and right (**100~500 words)**.

* *Acknowledgement (Optional):* Times New Roman, 11 pt.
* *Reference (Optional)*: Times New Roman, 11 pt

**Acknowledgement (Optional)**

This work was supported by National Grant no. ….

**References (Optional)**

[1] A. Author, B. Author, and C. Author*, Journal*, Volume, Page (Year).

[2] A. Author, *Title of Book*, Publisher, City (Year).

[3] A. Author and B. Author, *Conference,* Dates, City, Country, Page (Year).

[EXAMPLE]

Comparisons of ozone profiles from OMI, MLS, and OMPS satellites with ozonesonde measurement at Jang Bogo Station in Antarctica during 2015-2018

Hana Lee1, Taejin Choi2, Dha Hyun Ahn1, Seong-Joong Kim2, Jaeil Yoo2, Natalya Alekseyevna Kramarova3, Juseun Park4, Jhoon Kim1, Ja-Ho Koo1

1Department of Atmospheric Sciences, Yonsei University, Seoul, Republic of Korea

2Korea Polar Research Institute, Incheon, Republic of Korea

3NASA Goddard Space Flight Center, Greenbelt, MD, USA

4Busan National University, Busan, Republic of Korea

Previous inter-comparison studies have validated the quality of satellite data in Antarctica using a multi-decadal record of ozonesondes such as the World Ozone and Ultraviolet radiation Data Centre (WOUDC), and the campaign measurement (e.g., Concordiasi [1]), but still not enough for the whole Antarctic area. The Jang Bogo station (JBS), the second Korean base in Antarctica (Longitude: 164.4˚, Latitude: 74.5˚), is located in the region where ground-based measurements were not much conducted. Thus, here the monitoring of vertical ozone profile starts since 2015 using balloon measurements. These balloons were equipped with radiosondes and electrochemical cell (ECC) ozonesondes with a GPS receiver.

In this study, we evaluate several satellite ozone profile product, OMI (OMO3PR, PROFOZ), AIRS, MLS, and OMPS, against the ozonesonde from 2015 to 2018 in austral spring at the JBS. Mostly the JBS region was within the inside of the polar vortex. To use ozonesonde and satellite data with similar dynamic conditions, we consider the JBG Equivalent latitude within ± 3˚, along with spatial, temporal conditions. For comparison, we calculated the mean of relative difference (RD) in the satellite with the ozonesonde at altitude 15 km to 18 km. The results of nadir-viewing satellites (OMO3PR and PROFOZ) vary with altitude, and the RD being seen for the 45% and 34%, respectively. The comparison results of MLS and OMPS have 51% and 39%, respectively. They show a tendency to overestimate at 15 km to 18 km because, towards higher latitude, the satellite has a smaller retrieval signal under the ozone hole condition (September and October).

**Acknowledgement**

This work was supported by the Korea Polar Research Institute.

**References**

[1] A. Author, B. Author, and C. Author*, Journal*, Volume, Page (Year).