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Instruction for Proceedings of International Symposium on Okhotsk Sea and Ice 北方圏国際シンポジウムプロシーディング原稿様式

Relation between sea-ice variation in the Sea of Okhotsk and Arctic Oscillation Title: Times New Roman, Bold-face, 14-point, and Center

Charlie F. BROWN¹, Taro AOKI² and Kai MOMBETSU³ Author(s): 12-point font and center

¹ Geophysical Institute, University of Alaska, Alaska, USA

² Institute of Low Temperature Science, Hokkaido University, Sapporo, Japan

³ Mombetsu Oceanography Institute, Mombetsu, Japan

Affiliation(s): Affiliation, City, State or Province, Country using an italic 10.5-point font

(Left-justified with appropriate space, no postal code and no E-mail Address)

2 character-space

Abstract (Head:11 pt., bold; Body text: 10.5 pt.)

A short abstract (50 to 100 words) in a single paragraph should be included here. The paragraph needs the space of 4 characters at left and right sides. In this sample paper, we describe the formatting guidelines for submissions to the Proceedings of the International Symposium on Okhotsk Sea & Sea Ice. For a simple way, download a template from the web, and insert your information to the template. (10.5-point font)

Key words: sea ice, global warming, Arctic Oscillation (Head: 11 pt., words: 10.5-pt. font) List up 3 to 5 keywords for library indexing and online searching.

1. Introduction

The body of the paper begins with the Introduction.

Following the Introduction, a typical text should be organized into sections that describe the method, the observation data, the result and discussion, and the conclusions. Acknowledgments (where applicable) and references follow the Conclusions.

A conference paper should not exceed 4 pages.

2. Formattng

2.1 Text Style

Text must be single-spaced using a Times New Roman font, or Time. The fonts are as follows:

Title: 14-point, Bold

Author (s): 12-point with affiliation number1 (Superscript)

(See the example) Affiliation(s): 10-point, Italic

Use a 14-point font for the Title, a 12-point font for Author Name(s), an italic 10-point font for Affiliation(s), a 11-point fort for all Section and Subsection Heads, and a 10.5-point font for all body text. Text in the columns must be full justified.

2.2 Paper Title

The paper title with Times Roman or Times New Roman, bold-faced in 14-point font should be centered in upper and lower case at the location shown and two lines may be used.

2.3 Author Name(s)

25 mm

Author names in 12 point font should consist of first name, middle name and the last name with superscript

number of affiliation, and centered.

2.4 Affiliation(s)

The numbered Affiliation(s) should be left-justified with proper spaces (5-15) using an italic 10-point font. Do not include street address, postal code, email or fax numbers.

3. Chapter and section

Headings and subheadings appear throughout the text to divide the subject matter into logical parts and emphasize major elements. Numbering can be used for Chapter (1, 2, ..) and Section (1.1, 1.2, ...). Only initial of the title is in capital letter and others are in small letters except proper nouns (palace, human, some abbreviation like SAR etc.), as "3. Observations in the Sea of Okhotsk".

3.1 Chapter Heads

Chapter heads should be in upright bold 11pt font, as "1. Introduction".

3.2 Section heads

Section Heads should be in *italic* Bold 11pt font, as "2.1 Observations in the Sea of Okhotsk".

3.3 Last page

The two columns on the last page should be as close to equal length as possible, which is usually done by MS-Word.



4. Tables and figures

4.1 Tables

Table format is as shown here. Tables should be numbered consecutively. When referring to a table, use table numbers as Table 1, Tables $2\sim3,...$.

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*The unit should use SI unit in principle.

4.2 Equations

Equations are to be numbered. When referring in a sentence, refer them as "Eq. 1" or "Eqs. 5-7". When referring at sentence head, refer as "Equation 1".

$$Q_{\rm M} = (1-a) I + Q_{\rm RL} + Q_{\rm A} + Q_{\rm E} + Q_{\rm P} + Q_{\rm G}$$
 (1)

$$Q_{\rm E} = k_{\rm E} V_1 (T_1 - T_0) \tag{2}$$

(The variables use *italic* type, and the additional characters and figures use solid type as $Q_{\rm M}$.)

4.3 Figures

Number figures consecutively and use the figure number. When referring them in a text sentence, refer them as "Fig. 1" or "Figs. $2\sim3$ ". When referring at sentence head, refer as "Figure 1". Figures must have a caption as below.

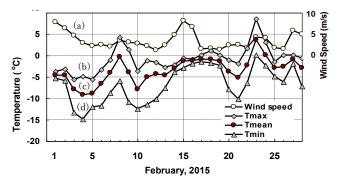


Fig. 1 Meteorological conditions of Mombetsu on February, 2015. (a) is daily mean wind speed. (b), (c) and (d) are daily maximum, mean, minimum temperatures respectively. (10-point font)

In a printed Proceedings, graphics will be in **black and white**, but they will be in color on web site. Please be aware of the quality of your figures, illustrations, and photos.

5. Conclusions

A summary of your research results should be included in this section toward the end of the paper.

Acknowledgements

Acknowledgements may be made to those individuals or institutions that made an important contribution.

References

References to original (not secondary) sources for cited material is to be listed together at the end of the paper. References should be published materials accessible to the public. Internal technical reports may be cited only if they are easily accessible to the public. Private communications should be acknowledged within text, not referenced.

List of References shall be arranged in alphabetical order of family name of the first- author for articles with more than one author.

For more than 4 authors, the authors should be presented as "Vuille, M. and 6 others (2008)", which should be referred as (Vuille and others, 2008).

Journals, conference proceedings and titles of books, should be in italics.

Examples are:

References

- Aota, M. (1999): Long-term tendencies of sea ice concentration and air temperature in the Okhotsk Sea coast of Hokkaido. *PICES Sci. Rep.*, **12**, 1–2.
- Kim, CH (2008): *Nonlinear Waves and Offshore Structures*, World Scientific, 516 pp.
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- Kawamura, K., F. Parennin and 16 others (2007): Northern hemisphere forcing of climatic cycles in Antarctica over the past 360,000 years. *Nature*, 448, 912-916.
- Ohshima, K.I., T. Watanabe and S. Nihashi (2003): Surface heat budget of the Sea of Okhotsk during 1987–2001 and the role of sea ice on it. J. Meteorol. Soc. Jpn., 81, 653-677.
- Okubo, A (2007): "A Comparative Study of Application of Ecosystem Approach to Marine Living Resource Management and it Implications for Japan", J. Ocean Policy Studies, Ocean Policy Research Foundation, Tokyo, 1-19.
- Takahashi, S., T. Kosugi and A. Hori (2010): Sea-ice extent variations along the Okhotsk coast of Hokkaido and Shiretoko Peninsula's 'Dam Effect' against sea ice flow. Proc. 25th Intnatl. Symp. on Okhotsk Sea & Sea Ice, Mombetsu, Japan, 25, 25–28.
- Taniguchi, A (2013): "Why marine mammals are abundant in the northern cold waters; Marine ecological basis of the sustainability of the northern Hunter-Gatherer". Proc. 28th Intnatl. Symp. on Okhotsk Sea & Sea Ice, Mombetsu, Japan,

28, 83-85.

- The Japanese Society of Snow and Ice (2005): "Encyclopedia of snow and ice (in Japanese)", Asakura Publishing, Tokyo, 760pp.
- Vuille, M. and 6 others (2008): Climate change and tropical Andean glaciers: past, present and future. *Earth-Sci. Rev.*, 89 (3-4), 79-96.
- Weeks, W. F., and S. F. Ackley (1982): The growth, structure, and properties of sea ice. *CRREL Monograph*, 82-1, U. S. Army Cold Research and Engineering Laboratory, Hanover, N. H., 129 pp.
- (For many authors, use "and 16 others" to shorten and to know authors number. Journal name is in italics.)

Summary in Japanese

Japanese author(s) is better to add a summary in Japanese at the end of the paper as following example.

(If possible)

Summary in Japanese

1760年前後のオランダ捕鯨船による北極域の 気象学的・地理学的観測

> Gaston R. DEMARÉE¹,田上善夫², Pascal MAILIER¹, Astrid E. J. OGILVIE^{3,4}, 三上岳彦⁵

1ベルギー王立気象研究所,2富山大学, 3ステファンソン北極研究所,4コロラド大学ボルダー校, 5首都大学東京

捕鯨とニシン漁業は、オランダ黄金時代(1600-1800 年)の主 要な経済活動の・・・ことがわかった.

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Template 1a (E) For numbered-chapter type

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Snowstorm countermeasures for highways in Hokkaido - Snowbreak forest in Okhotsk Area -

Toshikazu SAWAMATSU¹, Hiroki YUASA¹, Hideki HONDA², Yoshinori KAWASHIMA³, Masaru MATSUZAWA⁴ and Shuhei TAKAHASHI⁵

 ¹Abashiri Development and Construction Department, Hokkaido Regional Development Bureau, MLIT, Abashiri, Japan
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⁵Okhotsk Sea Ice Museum of Hokkaido, Mombetsu, Japan

Abstract

Key words: road, snowstorm countermeasure, snowbreak forest, snowstorm, traffic hindrance

1. Introduction

Hokkaido is designated as a snowy cold region, and the Okhotsk Area has particularly severe weather in winter. In recent years, snowstorm frequency has been increasing, as have snowstorm disruptions. During snowstorms, many cars become stranded,

2. Snowstorm damage in the Okhotsk area

2.1 Storm paths over Hokkaido

Low-pressure systems that bring heavy snowfall and snowstorms to Hokkaido have various characteristics, depending on their paths (Fukamachi and others, 2004).

There are three major types of low-pressure systems: 1) a low-pressure system over the Pacific Ocean as shown in Fig. 1.

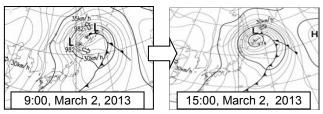


Fig. 1 Low-pressure system with two centers near the Okhotsk District

2.2 Snowstorms and road traffic hindrances in Okhotsk area

Roads in Eastern Hokkaido are frequently closed due to blowing snow. on national highways in Hokkaido (Kawamura and others, 2007; Takahashi and Kosugi, 2010).

5. Conclusion

This paper has explained road traffic disruption in the Okhotsk Area, which has particularly.....

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References

- Fukamachi, Y., G. Mizuta and 4 others (2004): Transport and modification processes of dense shelf water revealed by longterm moorings off Sakhalin in the Sea of Okhotsk. J. Geophys. Res. 109: C09S10, doi:10.1029/2003/JC001906.
- Ohshima, K.I., T. Watanabe and S. Nihashi (2003): Surface heat budget of the Sea of Okhotsk during 1987-2001 and the role of sea ice on it. J. Meteorol. Soc. Jpn., 81, 653-677.
- Kawamura, K., F. Parennin and 16 others (2007): Northern hemisphere forcing of climatic cycles in Antarctica over the past 360,000 years. *Nature*, **448**, 912-916.
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Summary in Japanese

.....(Title).....

.....(Author¹, Author², Author³).....

.....(¹Affiliation, ²Affiliation, ³Affiliation,).....

.....(Abstract).....

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Correspondence person's name and mail address

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Snowstorm countermeasures for highways in Hokkaido - Snowbreak forest in Okhotsk Area -

Toshikazu SAWAMATSU¹, Hiroki YUASA¹, Hideki HONDA², Yoshinori KAWASHIMA³, Masaru MATSUZAWA⁴ and Shuhei TAKAHASHI⁵

 ¹Abashiri Development and Construction Department, Hokkaido Regional Development Bureau, MLIT, Abashiri, Japan
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⁴Civil Engineering Research Institute for Cold Region, Sapporo, Japan
⁵Okhotsk Sea Ice Museum of Hokkaido, Mombetsu, Japan

Abstract

Key words: road, snowstorm countermeasure, snowbreak forest, snowstorm, traffic hindrance

Introduction

Hokkaido is designated as a snowy cold region, and the Okhotsk Area has particularly severe weather in winter. In recent years, snowstorm frequency has been increasing, as have snowstorm disruptions. During snowstorms, many cars become stranded.

Snowstorm damage in the Okhotsk area *a) Storm paths over Hokkaido*

Low-pressure systems that bring heavy snowfall and snowstorms to Hokkaido have various characteristics, depending on their paths (Fukamachi and others, 2004).

There are three major types of low-pressure systems: 1) a low-pressure system over the Pacific Ocean as shown in Fig. 1.

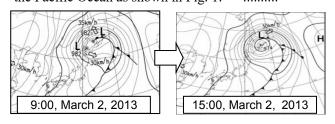


Fig. 1 Low-pressure system with two centers near the Okhotsk District

b) Snowstorms and road traffic hindrances in Okhotsk area

Roads in Eastern Hokkaido are frequently closed due to blowing snow. on national highways in Hokkaido (Kawamura and others, 2007; Takahashi and Kosugi, 2010).....

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Conclusion

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References

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(If possible)

Summary in Japanese

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Snowstorm countermeasures for highways in Hokkaido - Snowbreak forest in Okhotsk Area -

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⁴Civil Engineering Research Institute for Cold Region, Sapporo, Japan
⁵Okhotsk Sea Ice Museum of Hokkaido, Mombetsu, Japan

ABSTRACT

Introduction

Hokkaido is designated as a snowy cold region, and the Okhotsk Area has particularly severe weather in winter. In recent years,

Observation method

Low-pressure systems that bring heavy snowfall and snowstorms to Hokkaido have various characteristics, depending on their paths (Kawamura and others, 2007).

There are three major types of low-pressure systems: 1) a low-pressure system Observation area is shown in Fig. 1 (Takahashi and

Kosugi, 2010).

Map of observation area (or observation scenery and so on)	
Fig. 1 Map of observation area.	
Results This paper has explained road traffic disrupt	ion in th

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Okhotsk Area, which has particularly.....

References

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past 360,000 years. Nature, 448, 912-916.

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Astrid E. J. OGILVIE^{3,4}, 三上岳彦⁵

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捕鯨とニシン漁業は、オランダ黄金時代(1600-1800)の主要 な経済活動の担い手であった。......

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