【原稿と発表について】2017 年 第 32 回シンポジウム

(1) 最終原稿は、図表を含めて 4 ページ以内、原則として英文で作成して下さい。
詳細は、次頁「原稿様式」を参照してください。
「原稿様式」ワードファイルも添付します。テキストコピーをして作成しても結構です。
※ 「原稿様式」を細かく設定していますが、原則とします。様式から少々異なっていても問題ありません。
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(6) 発表は、15 分＝質疑応答を含めて 20 分です。言語は、原則として英語でお願いします。日本語で発表を希望する方は、事前にお知らせください。

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(8) 他に希望（ポスター宣伝、ネパンフレット配布、ネットを使う発表、ビデオ機器使用、期間中のミーティング会場確保等）がありましたら事前にお知らせ下さい。

(9) 研究発表セッションは、論文の数・種類によって、ご希望より変更があることをご了承下さい。

30 mm

北方圏国際シンポジウムプロシーディング原稿様式

For 2017 Symposium
Japanese Version.2.0
2016, 12/02

18 mm　　18 mm

1) 原稿は最大4頁，原則英文とする（可能なら和文要約を付ける）．フォントは Times New Roman（Times も可）
2)マージン：上 30 mm,下 25mm,左 18mm,右 18mm，1 頁行数 34 行,41 字/行，2 段組段幅 19.66 字,間隔 1.77 字
3) タイトル：強調立体，14pt. タイトル先頭および固有名詞頭文字は大文字．大文字略語等以外は原則小文字．
4) 著者名：立体，12pt. 姓は全て大文字，名は頭文字のみ大文字．所属番号（上付き数字）を付ける．
5) 所属： 初めに所属番号（上付き）．斜体 10pt， 5～15 字インデント（字下げ）して左寄せ．
6) **Abstract**： 概ね 5～10 行．左・右側を 3～4文字程度空ける．タイトルは強調立体 11pt，文章は標準 10.5pt.
7) **Key word**： Keyword を 3～5 語付ける．スタイルは同上，原則小文字．慣用で大文字を使うものを除く．
8) 章・節タイトル：強調 11pt，章タイトル全て大文字．節タイトルは先頭のみ大文字，固有名詞頭文字のみ大文字．
9) 章・節に「**1.**」,「**2.**」,「**2.1**」,「**2.2**」の番号を付けてもよい(Template 1 は番号なし，Template 2 は番号あり)．
10) 本文： 10.5pt，段落行頭で空白2～3文字下げる．
11) 図： Fig. 1 とする．図説明：行頭1～2文字程度下げる．説明文は3文字ぶら下げｲﾝﾃﾞﾝﾄ(Hanging Indent)
12) 式： 後ろに(1)等を付ける．上下1行空ける．引用は文中で Eq. 1，行頭では Equation 1．図(Fig. 1)も同様．
13) **REFERENCE**：文献情報は立体（雑誌名は斜体），9pt、3 文字ぶら下げｲﾝﾃﾞﾝﾄ（2 行目以降を 3 文字下げ）．
著者多数の場合，共著者が後 16 名いるなら and 16 others と短くする．
14) テンプレートを利用すると下記例の書式となります（Template 1 は章・節番号なし，Template2 は番号あり）．
※ 書式は，概ね Journal of Glaciology （国際雪氷学会誌，英国）に準ずる．

（例）

14pt, Bold

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

12pt

Toshikazu SAWANATSU[1], Hiroki YUASA[1], Hideki HONDA[2], Yoshinori KAWASHIMA[3], Masaru MATSUZAWA[4] and Shuhei TAKAHASHI[5]

10pt, Italic

[1]Abashiri Development and Construction Department, Hokkaido Regional Development Bureau, MLIT, Abashiri, Japan
[2]Koken Engineering Co., Ltd., Sapporo, Japan
[3]Docon Co., Ltd., Sapporo, Japan
[4]Civil Engineering Research Institute for Cold Region, Sapporo, Japan
[5]Okhotsk Sea Ice Museum of Hokkaido, Mombetsu, Japan

11 pt, Bold **Abstract**

10.5 pt Recently, snowstorms have become extremely severe in the Okhotsk Area of Hokkaido, Japan. They have .... and by the Civil Engineering Research Institute for Cold Region.

11 pt, Bold **Key words:** road, snowstorm countermeasure, snowbreak forest, snowstorm, traffic hindrance 10.5 pt

1. INTRODUCTION 11 pt, Bold

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

11 pt Bold **2. SNOWSTORM DAMAGE IN THE OKHOTSK AREA**

2.1 Storm paths over Hokkaido

10.5 pt Low-pressure systems that bring heavy snowfall and snowstorms to Ho kkaido have various characteristics, depending on their paths.

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

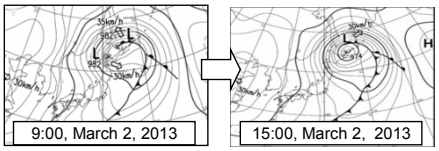

Fig. 1 Low -pressure system with two centers near the Okhotsk District

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 (Fig. 2). .....

.....

5. CONCLUSION

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

REFERENCES 11 pt, Bold

9 pt

Fukamachi, Y., G. Mizuta and 4 others (2004): Transport and modification processes of dense shelf water re vealed by long-term 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.

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.

Summary in Japanese 11 pt, Bold
和文要約 10 pt, MSP 明朝

北海道の道路吹雪対策
－オホーツク地域の防雪林－ 11pt, MSP ｺﾞｼｯｸ

澤松俊寿[1]，湯浅浩喜[1]，本田秀樹[2]，川島由載[3] 10pt, MSP 明朝
松澤 勝[4]，高橋修平[5]

[1]網走開発建設部），[2]構研エンジニアリング，[3]（株）ドーコン， 9pt, MSP 明朝
[4]寒地土木研究所，[5]ホーツク流氷科学センター

1950～2015 年のオホーツク海の海氷勢力と北極振動の関係を調べたところ・・・・・・・・・・・・・・・・・・ 10pt, MSP 明朝
・・・の間に非常によい正の相関があることがわかった．

25 mm

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Instruction for Proceedings of 2017 International Symposium on Okhotsk Sea and Ice

18 mm

Relation between sea-ice variation in the Sea of Okhotsk and Arctic Oscillation

18 mm

Title: Times New Roman, Bold-face, 14-point, and Center

Charlie F. BROWN[1], Taro AOKI[2], Eriko MOMBETSU[3]

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

3 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 key words for library indexing and on-line searching.

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**.

FORMATTING

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 number[1] (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 font for all Section and Subsection Heads, and a 10.5-point font for all body text. Text in the columns must be full justified.

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.

Author Name(s)

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

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.

SECTION

Headings and subheadings appear throughout the text to divide the subject matter into logical parts and emphasize major elements. Numbering can be used. The attached Templates are

Template 1 for **un-numbered** sections and
Template 2 for **numbered** sections.

Section Heads

Section heads should be flush left in all bold and CAPITAL letters.

Subsection Heads

Subsection Heads should be bold and flush left in upper and lower case as shown. For subsection heads, a word like the or a is not capitalized unless it is the first word of the header.

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..

25 mm

Tables

Table format is as shown here. Tables should be numbered consecutively. When referring to a table, use table numbers as Table 1, Tables 2~3,... .

Table 1. Margins of pages. This instruction is in this form.

	Left Column	Right Column
Top margin	30 mm*	
Side margin	18 mm from left edge	18 mm from right edge
Column width	19.55 characters	19.55 characters
Space of columns	1.77 characters	
Bottom margin	25 mm	

*The unit should use SI unit in principle.

Equations

Equations are to be numbered consecutively from Eq. 1 to the end of the paper as below. Use the equation number when referring to equations (Eq. 1, Eqs. 5-7,...).

$$Q_M = (1\text{-}a)\, I + Q_{RL} + Q_A + Q_E + Q_P + Q_G \qquad (1)$$

$$Q_E = k_E V_1 (T_1 - T_0) \qquad (2)$$

(The **variables** use **italic** type, and the **additional characters** and **figures** use **solid** type.)

Figures

Number figures consecutively and use the figure number when referring to a figure (Fig. 1) or figures (Figs. 2~3), ... Figures must have a caption consisting of an abbreviated number, like Fig. 1 as below.

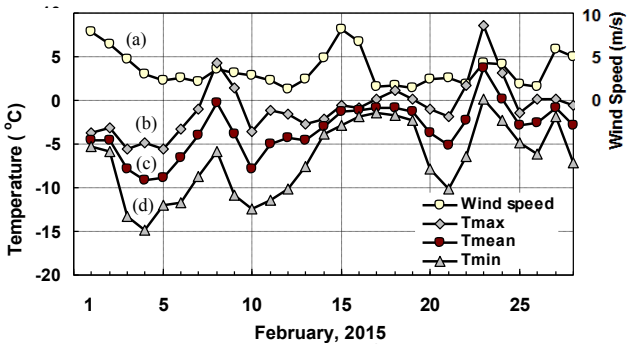

Fig. 1 Meteorological conditions of Mombetsu on February, 2015. (a) is daily mean wind speed. (b), (c) and (d) are daily maximum, mean, minimum temperatures respectively.

(Fig. captions: 10-point font, 3-characters hanging indent)

In a printed proceedings, graphics will be in **black and white**. On the **CD-ROM**, the graphics will be portrayed in **color** wherever possible. Please be aware of the quality of your figures, illustrations, and photos.

CONCLUSIONS

A brief 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 for 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 are 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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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.

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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.)

Text Citation of References

Within text of an article, references are to be cited by last name of author(s) and year of publication. Each reference to include last names of first or main authors, adding "et al", or full authors.

For example:

.....were found (Kawamura and others, 2007).

Fukamachi, Y., G. Mizuta and others (2004) has estimated ....

Ueda and Rashed (1990) proposed that …

Oshima (1980a) observed .....

It was also noted (Yamaguchi, 2007; Kim, 2008; Riska, 1980b; Kheisin, 1992) that .....

〔参考〕 WORD 改行知識

・Shift + Enter は段落内改行：
右の和文要約のように所属が2行に渡るとき，段落に後間隔に 0.5 行が設定されていると，普通の改行は 0.5 行空きますが，Shift + Enter とすると段落内改行で，空白行ができません．これはタイトル・著者名でも同様です．改行マークを表示させると普通は曲がり矢印ですが，段落内改行は下向き矢印で区別できます．

・Ctrl + Enter は強制改頁：強制的に頁を変えます．

・Ctrl + Shift + Enter は段組内強制改行：
あまり知られていませんが，現在の書式のような2段組のとき，段組の左から右へと文書途中で移りたいときに使います．前の段組行数が多少変わっても後に影響を及ぼしません．ここの段組でも使っています．

・書式→段組において段落後間隔を 0.5 行とすると右の例のようにタイトルや著者名で 0.5 行の間隔を空けられます．もう少し詰める時は 0.3 行とか自由設定できます．1頁に何とか文章を収めたいという時は，行間隔を固定値 14～16pt とかにして行間をつめてもかまいません．ちなみに，この文章は 12pt です．

Summary in Japanese

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

Summary in Japanese 11 pt, Bold

段落書式：段落後間隔 0.5 行

和文要約 10 pt, MSP 明朝

オホーツク海の海氷変動と北極振動の関係 11pt, MSP ｺﾞｼｯ

Charlie F. Brown[1], 青木太郎 [2], 紋別恵理子 [3] 10pt, MSP 明朝

[1]University of Alaska, [2] 北海道大学低温科学研究所,
[3] 紋別海洋研究所 9pt, MSP 明朝

段落内改行は Shift + Enter

1950～2015 年のオホーツク海の海氷勢力と北極振動の関係を調べたところ・・・ 10pt, MSP 明朝
・・・・・・・・
の間に非常によい正の相関があることがわかった．

Copyright

Please attach the following copyright phrase at last;

"Cold Ocean" is changed to "Polar Oceans" in 2017 Symposium.

※今回から
The Okhotsk Sea & Cold Ocean Research Association は The Okhotsk Sea & Polar Oceans Research Association と変わりました．

Template 1: 章・節番号なしテンプレート.
このテキストボックスは原稿提出時に削除願います.

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

Toshikazu SAWAMATSU[1], Hiroki YUASA[1], Hideki HONDA[2], Yoshinori KAWASHIMA[3], Masaru MATSUZAWA[4] and Shuhei TAKAHASHI[5]

[1]*Abashiri Development and Construction Department, Hokkaido Regional Development Bureau, MLIT, Abashiri, Japan*
[2]*Koken Engineering Co., Ltd., Sapporo, Japan*
[3]*Docon Co., Ltd., Sapporo, Hokkaido, Japan*
[4]*Civil Engineering Research Institute for Cold Region, Sapporo, Japan*
[5]*Okhotsk Sea Ice Museum of Hokkaido, Mombetsu, Japan*

Abstract

Recently, snowstorms have become extremely severe in the Okhotsk Area of Hokkaido, Japan. They have .... and by the Civil Engineering Research Institute for Cold Region.

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

Storm paths over Hokkaido

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

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

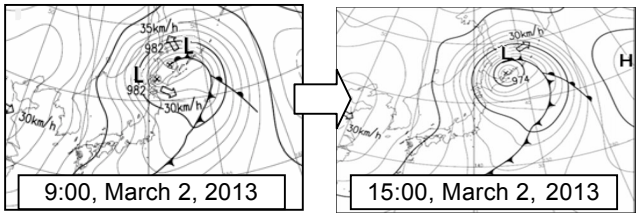

Fig. 1 Low-pressure system with two centers near the Okhotsk District

Snowstorms and road traffic hindrances in Okhotsk Area

Roads in Eastern Hokkaido are frequently closed due to blowing snow. ..... on national highways in Hokkaido (Fig. 2). .....

.....

CONCLUSION

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

REFERENCES

Fukamachi, Y., G. Mizuta and 4 others (2004): Transport and modification processes of dense shelf water revealed by long-term moorings off Sakhalin in the Sea of Okhotsk. *J. Geophys. Res.* **109**: C09S10, doi:10.1029/2003/JC001906.

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Summary in Japanese

和文要約

北海道の道路吹雪対策
－オホーツク地域の防雪林－

澤松俊寿[1], 湯浅浩喜[1], 本田秀樹[2], 川島由載[3],
松澤 勝[4], 高橋修平[5]

[1]網走開発建設部), [2]構研エンジニアリング, [3](株)ドーコン,
[4]寒地土木研究所, [5]ホーツク流氷科学センター

ホーツク海沿岸沿いの・・・・・・・・・・・・・・・・・・
防雪林は道路に対して斜め方向の風にも視程障害緩和の効果を持つ, また・・・・・・・・・

Template 2: 章・節番号付きテンプレート.
このテキストボックスは原稿提出時に削除願います.

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

Toshikazu SAWAMATSU[1], Hiroki YUASA[1], Hideki HONDA[2], Yoshinori KAWASHIMA[3], Masaru MATSUZAWA[4] and Shuhei TAKAHASHI[5]

[1]*Abashiri Development and Construction Department, Hokkaido Regional Development Bureau, MLIT, Abashiri, Japan*
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Abstract

Recently, snowstorms have become extremely severe in the Okhotsk Area of Hokkaido, Japan. They have .....
..... and by the Civil Engineering Research Institute for Cold Region.

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. .....

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.

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

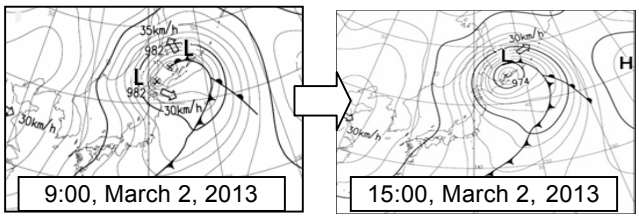

Fig. 1 Low-pressure system with two centers near the Okhotsk District

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 (Fig. 2). .....

.....

5. CONCLUSION

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

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Summary in Japanese

和文要約

北海道の道路吹雪対策
－オホーツク地域の防雪林－

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ホーツク海沿岸沿いの・・・・・・・・・・・・・・・・・
防雪林は道路に対して斜め方向の風にも視程障害緩和の効果を持つ, また・・・・・・・・・・・・・・・