

【Curriculum Vitae (May 8th, 2015)】

Name: Hiroto Abe

Sex: Male

Nationality: Japanese

Description: Age: 31. Height: 181 cm. Weight: 75kg.

○Academic qualification

2006 : Bachelor of Science, Tohoku University, Japan.

2008 : Master of Science, Tohoku University, Japan.

2011 : Doctoral Degree of Science, Tohoku University, Japan.

○Title of doctoral dissertation

Quasi-absolute mean sea surface height field for satellite altimetry data and its utilization for ocean current studies in the North Pacific

(supervisor : Dr. Kimio Hanawa)

○Work experience

2011 - 2015 : Postdoctoral fellow, Hokkaido University, Japan

○Present work as a postdoctoral fellow

Evaluation of sea surface salinity observed by Aquarius. (with Dr. Naoto Ebuchi)

○Special field of research

Aquarius sea surface salinity

Atmosphere-ocean interaction in the eastern North Pacific

Sea surface current variations using satellite altimeter

○Award

1. The Young Author Award 2015, the Oceanographic Society of Japan

○Research fund (1\$ = 120 jpy)

1. 2015 Sasagawa Scientific Research Grant \$2,500
2. 2012 The oceanographic society of Japan \$2,000
3. 2010 Sasagawa Scientific Research Grant \$5,500
4. 2009 Sasagawa Scientific Research Grant \$5,500
5. 2009 Japan Marine Science Foundation \$800

○Research Cruises

1. Hakuho-maru, KH-08-3 (leg2), Oct. 9 2008 - Nov. 11 2008, Shiogama – Tokyo.
2. Tansei-maru, KT-06-12, Jun. 16 2006 - Jun. 21 2006, Tokyo – Tokyo.
3. Wakataka-maru, Apr. 21 2006 - Apr. 30 2006, Hachinohe – Shiogama.
4. Hakumo-maru, KH-06-1 (leg3), Feb. 21 2006 - Mar. 17 2006, Tokyo – Tokyo.

○Membership

1. The Oceanographic Society of Japan
2. American Geophysical Union

○Contact Information

Institute of Low Temperature Science, Hokkaido University

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Email : abe@lowtem.hokudai.ac.jp

Tel:+81-11-706-5479

○Peer-reviewed papers

Published

1. Toyoda, T., Y. Fujii, T. Kuragano, J. P. Matthews, **H. Abe**, N. Ebuchi, N. Usui, K. Ogawa, and M. Kamachi, Improvements to a global ocean data assimilation system through the incorporation of Aquarius surface salinity data. Quarterly Journal of the Royal Meteorological Society, in press.
2. **Abe, H.**, and N. Ebuchi, 2014: Evaluation of sea surface salinity observed by Aquarius. J. Geophys. Res. Oceans, 119, 8109-8121, doi: 10.1002/2014JC010094.
3. **Abe, H.**, Y. Tanimoto, T. Hasegawa, N. Ebuchi, and K. Hanawa, 2014: Oceanic Rossby waves induced by the meridional shift of the ITCZ in association with ENSO events. J. Oceanogr., 70, 165-174, doi:10.1007/s10872-014-0220-1.
4. **Abe, H.**, K. Hanawa, and N. Ebuchi, 2013: Interannual variations in the Hawaiian Lee Countercurrent. J. Oceanogr., 69, 191-202, doi:10.1007/s10872-012-0166-0.

○Proceedings of International Conference

1. Toyoda, T., Y. Fujii, T. Kuragano, J. P. Matthews, **H. Abe**, N. Ebuchi, N. Usui, K. Ogawa, and M. Kamachi, 2015: Improvements of the surface layer in the North Pacific reproduced by an ocean data assimilation system through the incorporation of Aquarius surface salinity data. Kaiyo Monthly, Vol. 47, No. 4, 172-180. (in Japanese)
2. Zhang, W., N. Ebuchi, B. Emery, and **H. Abe**, 2015: Drift ice detection by HF ocean radar off Mombetsu. Proceedings of 30th International Symposium on Okhotsk Sea and Sea Ice, Mombetsu, Japan, February 2015, 95-98.
3. Ebuchi, N., and **H. Abe**, 2014: Evaluation of sea surface salinity observed by Aquarius. Proc. IGARSS 2014, Quebec City, Canada, July 2014, 4427-4430, doi: 10.1109/IGARSS.2014.6947473.
4. Ebuchi, N., and **H. Abe**, 2013: Evaluation of sea surface salinity observed by Aquarius and SMOS. Proc. IGARSS 2013, Melbourne, Australia, July 2013, 656-659, doi: 10.1109/IGARSS.2013.6721242.

5. Ebuchi, N., and **H. Abe**, 2012: Evaluation of sea surface salinity globally observed Aquarius. Proceedings of ISRS 2012 ICSANE, Incheon, Korea, October 2012, 4 pp.(DVD)(20121000)
6. Ebuchi, N., and **H. Abe**, 2012: Evaluation of sea surface salinity observed Aquarius on SAC-D. Proceedings of SPIE Asia-Pacific Remote Sensing Conference, Remote Sensing of the Marine Environment II, Kyoto, Japan, October 2012, doi :10.1117/12.970253(20121000)
7. Ebuchi, N., and **H. Abe**, 2012: Evaluation of sea surface salinity observed by Aquarius. Proc. IGARSS 2012, Munich, Germany, July 2012, 5767-5769, doi:10.1109/IGARSS.2012.6352300.
8. **Abe, H.**, and K. Hanawa, 2010: "Mean sea surface height in the world ocean using Argo float and altimetry" in Proceedings of OceanObs'09: Sustained Ocean Observations and Information for Society (Annex), Venice, Italy, 21-25 September 2009, Hall, J., Harrison, D.E. & Stammer, D., Eds., ESA Publication WPP-306.

○Review journals

Journal of Atmosphere and Oceanic Technology, Geophysical Research Letters

○Invited speech

1. **阿部泰人**, 谷本陽一, 長谷川拓也, 江淵直人, 花輪公雄: 熱帯収束帯の南北変位が励起した海洋ロスビー波. 海ロマン21 定例会, 世田谷, 2015年5月15日.
2. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. G-COE symposium 2012, B2-04, Sendai, Japan, Sep 26, 2012.

○Presentations at international conferences

Oral type

3. **Abe, H.**, Y. Tanimoto, T. Hasegawa, N. Ebuchi, and K. Hanawa: Oceanic Rossby waves induced by meridional shift of Inter-Tropical Convergence Zone in association with El Niño-Southern Oscillation. 26th IUGG general assembly 2015, Prague, Czech Republic, Jul 1, 2015.
4. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. 26th IUGG general assembly 2015, Prague, Czech Republic, June 30, 2015.
5. Zhang, W., N. Ebuchi, B. Emery, and **H. Abe**: Drift ice detection by HF ocean radar off Mombetsu. The 30th International Symposium on Okhotsk Sea & Sea Ice, Mombetsu, C-4, 2015/02/17.
6. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. Aquarius/SAC-D 8th Science Meeting, Buenos Aires, Argentina, Nov 13, 2013.
7. Ebuchi, N., and **H. Abe**: Evaluation of sea surface salinity observed by Aquarius and SMOS. IGARSS, TU4.T09.2, Melbourne, Australia, Jul 23, 2013.
8. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. SMOS & Aquarius science workshop, Brest, France, April 17, 2013.
9. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. PORSEC2012, PORSEC2012-16-00011, Kochi, India, Nov 8, 2012.
10. **Abe, H.**, and K. Hanawa: Sea surface current variations around the Kuroshio Extension induced by the West Pacific teleconnection pattern. PORSEC2012, PORSEC2012-09-00005, Kochi, India, Nov 7, 2012.
11. Ebuchi, N., and **H. Abe**: Evaluation of sea surface salinity observed by Aquarius on SAC-D. SPIE, 8525-1, Kyoto, Japan, Oct 31, 2012.
12. Ebuchi, N., and **H. Abe**: Evaluation of sea surface salinity observed by Aquarius. IGARSS, TH4.9.4, Munich, Germany, Jul 26, 2012.
13. **Abe, H.**, and K. Hanawa: MEAN SEA SURFACE HEIGHT IN THE WORLD OCEAN USING ARGO FLOAT AND ALTIMETRY. The 3rd Argo Science Workshop, T-6, Hangzhou, China, March 25, 2009.

Poster type

1. Toyoda, T., Y. Fujii, T. Kuragano, J. P. Matthews, **H. Abe**, N. Ebuchi, N. Usui, K. Ogawa, and M. Kamachi: Improvements to a global ocean data assimilation system through the incorporation of Aquarius surface salinity data. Ocean salinity science and salinity remote sensing workshop, Met Office, Exeter, United, Kingdom, Nov 26-27, 2014.
2. **Abe, H.**, and N. Ebuchi: A wide-spread freshening during passage of a typhoon captured by Aquarius: a case study. Aquarius/SAC-D 3rd Science Meeting, Seattle, USA, Nov 12-13, 2014.
3. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. Aquarius/SAC-D 3rd Science Meeting, Seattle, USA, Nov 12-13, 2014.
4. Ebuchi, N., and **H. Abe**: Evaluation of sea surface salinity observed by Aquarius. IGARSS, THP.EE.178, Québec City, Canada, Jul 17, 2014.
5. Ebuchi, N., and **H. Abe**: Composition of the L-band geophysical model function using data from Aquarius scatterometer. Aquarius/SAC-D 7th Science Meeting, Buenos Aires, Argentina, Apr 11-13, 2012.
6. **Abe, H.**, and N. Ebuchi: Evaluation of sea surface salinity observed by Aquarius. Aquarius/SAC-D 7th Science Meeting, Buenos Aires, Argentina, Apr 11-13, 2012.
7. **Abe, H.**, and K. Hanawa: Interannual variation of the Hawaiian Lee Countercurrent. AGU fall meeting 2010, OS41A-1551, San Francisco, USA, Dec 16, 2010.
8. **Abe, H.**, and K. Hanawa: MEAN SEA SURFACE HEIGHT IN THE WORLD OCEAN USING ARGO FLOAT AND ALTIMETRY. Ocean Obs'09, AC02B-1, Venice, Italy, Sep 22, 2009.
9. **Abe, H.**, and K. Hanawa: Contribution of Temperature Anomaly to Large Sea Surface Height Anomaly Associated with Mesoscale Eddy. IAPSO2009, P01.15/21417, Montreal, Canada, July 21, 2009.
10. **Abe, H.**, and K. Hanawa: MEAN SEA SURFACE HEIGHT IN THE WORLD OCEAN USING ARGO FLOAT AND ALTIMETRY. GODAE Final Symposium, 063, Nice, France, November 13-14, 2008.
11. **Abe, H.**, and K. Hanawa: Mean Sea Surface Height in the North Pacific. Ocean Sciences Meeting 2008, PTH0101, Orland, USA, March 5, 2008.
12. **Abe, H.**, and K. Hanawa: Mean sea surface height field in the North Pacific.

EASTEC symposium 2007, CC-P19, Sendai, Japan, September 20, 2007.

○Presentations at domestic conferences

Oral type

1. 豊田隆寛, 藤井陽介, 倉賀野連, ジョンマシューズ, **阿部泰人**, 江淵直人, 碓氷典久, 小川浩司, 蒲地政文: 全球海洋データ同化システムにおけるアクエリアス衛星海面塩分データのインパクト. 2015年度日本地球惑星科学連合大会, ***, 幕張, 2015年*月**日.
2. 張偉, 江淵直人, ブライアンエメリー, **阿部泰人**: HF Ocean Radar applied in Drift Ice Remote Sensing. 2015年度日本海洋学会春季大会, 303, 東京海洋大学, 2015年3月22日.
3. 張偉, 江淵直人, ブライアンエメリー, **阿部泰人**: Drift Ice Detection by HF radar off Mombetsu. 九州大学応用力学研究所研究集会, 九州大学, 2014年12月10日.
4. 豊田隆寛, 藤井陽介, 倉賀野連, **阿部泰人**, 江淵直人, 碓氷典久, 蒲地政文: Aquarius衛星海面塩分データの全球海洋再解析へのインパクト. 2014年度日本海洋学会秋季大会, 138, 長崎大学, 2014年9月16日.
5. **阿部泰人**, 江淵直人: Aquarius/SAC-Dが観測した海面塩分の精度評価(Ⅲ). 2014年度日本海洋学会秋季大会, 230, 長崎大学, 2014年9月15日.
6. **阿部泰人**, 谷本陽一, 長谷川拓也, 江淵直人, 花輪公雄: 熱帯収束帯の南北変位により励起された海洋ロスビー波. 2014年度日本海洋学会春季大会, 241, 東京海洋大学, 2014年3月29日.
7. 江淵直人, **阿部泰人**: Aquarius衛星で観測された海面塩分の精度評価(Ⅱ). 2013年度海洋理工学会秋季大会, A06, 京都大学, 2013年10月22日.
8. **阿部泰人**, 江淵直人: Aquarius/SAC-Dが観測した海面塩分の精度評価(Ⅱ). 2013年度日本海洋学会春季大会, 236, 東京海洋大学, 2013年3月24日.
9. 江淵直人, **阿部泰人**, 磯口治: Aquariusによって観測された海面のL-band散乱断面積の風速・風向依存性. 2012年度日本海洋学会秋季大会, 231, 東海大学, 2012年9月16日.
10. 江淵直人, **阿部泰人**: Aquarius衛星で観測された海面塩分の精度評価. 2012年度海洋理工学会春季大会, A10, 東京海洋大学, 2012年5月25日.
11. **阿部泰人**, 江淵直人: Aquarius/SAC-Dが観測した海面塩分の精度評価. 2012

- 年度日本海洋学会春季大会, 333, 筑波大学, 2012年3月29日.
12. **阿部泰人**, 花輪公雄: West Pacific teleconnection patternがもたらす北太平洋北西部の表層流速変動. 2011年度日本海洋学会秋季大会, 149, 九州大学, 2011年9月29日.
 13. **阿部泰人**, 花輪公雄: The Hawaiian Lee Countercurrentの経年変動. 2010年度日本海洋学会秋季大会, 128, 東京農業大学, 2010年9月8日.
 14. **阿部泰人**, 花輪公雄: 中規模渦の大きな海面高度偏差に対する水温偏差の寄与. 2009年度日本海洋学会春季大会, 164, 東京大学, 2009年4月8日.
 15. **阿部泰人**, 花輪公雄: 海面高度計とArgoデータを用いた全球海洋における平均海面高度場の構築. 2008年度日本海洋学会秋季大会, 150, 広島国際大学, 2008年9月27日.
 16. **阿部泰人**, 花輪公雄: 海面高度計とArgoデータを用いた北太平洋における平均海面高度場の作成. 2008年度日本海洋学会春季大会, 126, 東京海洋大学, 2008年3月27日.
 17. **阿部泰人**, 花輪公雄: 海面高度計とArgoデータを用いた北太平洋における平均海面高度場の作成. 2007年度日本海洋学会秋季大会, 342, 琉球大学, 2007年9月27日.

Poster type

1. **阿部泰人**, 花輪公雄: 黒潮続流流軸南北位置と流速の季節変化について. 2010年度日本海洋学会春季大会, P04, 東京海洋大学, 2010年3月27-29日.

○Skills

▪Ship observation

CTD, XBT, XCTD, bottom-mounted mooring, Argo float, water sampling, oxygen titration, chlorophyll, sorting, net, calibration of CTD salinity profile using bottle sample water.

▪Data analysis

▪Analyses:

Correlation, regression analysis, spectrum, harmonics, wavelet analysis, digital filter (highpass, bandpass, lowpass filter), interpolation method (Akima method), principal component analysis (EOF), singular value decomposition, principal oscillation pattern analysis, cluster analysis.

▪Data:

Atmospheric data : surface wind, wind stress, sea level pressure, precipitation, evaporation data.

Oceanic data : satellite-based sea surface height, sea surface temperature, sea surface salinity, and in-situ based temperature, salinity, pressure data.

▪Numerical experiment

A 1.5 layer reduced gravity model, a mixed layer salinity model.

▪Computer

Programming languages: Fortran77/90/95, UNIX/Linux Shell Scripts, Matlab.

Web page development & management: HTML.

▪Languages : Japanese, English.

▪Sports : Baseball, softball, football, volleyball, snowboarding, ski.