

## 6. 成果発表

## 6. 1. 論文等

気象研究所の職員が、平成30年度に発表した原著論文や報告書、著書、翻訳、解説などの著作物について、単独・共著の区別なく掲載した。ただし、口頭発表に伴う著作物のうち学会予稿集など簡易なものについては除いている。

各著作物の情報は、整理番号、著者、発表年、タイトル、掲載誌（書名）、掲載巻、掲載頁、doi（オンライン論文誌）またはISBN（著書（分担執筆含む））の順で掲載した。整理番号の後ろに「\*」を付した著作物は、原著論文査読付きであることを示している。

- 青梨和正 1\* Shimada, U., H. Owada, M. Yamaguchi, T. Iriguchi, M. Sawada, K. Aonashi, M. DeMaria, and K. Musgrave, 2018: Further Improvements to the Statistical Hurricane Intensity Prediction Scheme Using Tropical Cyclone Rainfall and Structural Features . *Weather and Forecasting*, **33**, 1587-1603, doi:10.1175/WAF-D-18-0021.1.
- 足立アホロ 1\* Kawabata, T., H.-S. Bauer, T. Schwitalla, V. Wulfmeyer, and A. Adachi, 2018: Evaluation of forward operators for polarimetric radars aiming for data assimilation. *Journal of the Meteorological Society of Japan*, **96A**, 157-174, doi:10.2151/jmsj.2018-017.
- 2\* Kawabata, T., T. Schwitalla, A. Adachi, H.-S. Bauer, V. Wulfmeyer, N. Nagumo, and H. Yamauchi, 2018: Observational operators for dual polarimetric radars in variational data assimilation systems (PolRad VAR v1.0). *Geoscientific Model Development*, **11**, 2493-2501, doi:10.5194/gmd-11-2493-2018.
- 3\* Nagumo, N., A. Adachi, and H. Yamauchi, 2019: Geometrical properties of hydrometeors during the refreezing process and their effects on dual-polarized radar signals. *Monthly Weather Review*, **147**, doi:10.1175/MWR-D-18-0278.1. (in press)
- 足立光司 1\* Satou, Y., K. Sueki, K. Sasa, H. Yoshikawa, S. Nakama, H. Minowa, Y. Abe, I. Nakai, T. Ono, K. Adachi, and Y. Igarashi, 2018: Analysis of two forms of radioactive particles emitted during the early stages of the Fukushima Dai-ichi Nuclear Power Station accident. *Geochemical Journal*, **52** (2) , 137-143, doi:10.2343/geochemj.2.0514.
- 2\* Kajino, M., T. T. Sekiyama, A. Mathieu, I. Korsakissok, R. Pérrillat, D. Quélo, A. Quérel, O. Saunier, K. Adachi, S. Girard, T. Maki, K. Yumimoto, D. Didier, O. Masson, Y. Igarashi, 2018: Lessons learned from atmospheric modeling studies after the Fukushima nuclear accident: Ensemble simulations, data assimilation, elemental process modeling, and inverse modeling, . *Geochemical Journal*, **52** (2) , 85-101, doi:10.2343/geochemj.2.0503.
- 3\* Freney, E., K. Sellegri, M. Chrit, K. Adachi, J. Brito, A. Waked, A. Borbon, A. Colomb, R. Dupuy, J.M. Pichon, L. Bouvier, C. Delon, C. Jambert, P. Durand, T. Bourianne, C. Gaimoz, S. Triquet, A. Féron, M. Beekmann, F. Dulac, and K. Sartelet, 2018: Aerosol composition and the contribution of SOA formation over Mediterranean forests . *Atmospheric Chemistry and Physics*, **18** (10) , 7041-7056, doi:10.5194/acp-18-7041-2018.
- 4\* Ohata, S., A. Yoshida, N. Moteki, K. Adachi, Y. Takahashi, M. Kurisu, and M. Koike, 2018: Abundance of light - absorbing anthropogenic iron oxide aerosols

- in the urban atmosphere and their emission sources. *Journal of Geophysical Research Atmosphere*, **123**, 8115-8134, doi:10.1029/2018JD028363.
- 5\* Deng, Y., S. Kagami, S. Ogawa, K. Kawana, T. Nakayama, R. Kubodera, K. Adachi, T. Hussein, Y. Miyazaki, and M. Mochida, 2018: Hygroscopicity of organic aerosols and their contributions to CCN concentrations over a mid - latitude forest in Japan. *Journal of Geophysical Research Atmosphere*, **123** (17) , 9703-9723, doi:10.1029/2017JD027292.
- 6\* Yoshida, A., S. Ohata, N. Moteki, K. Adachi, T. Mori, M. Koike, and A. Takami, 2018: Abundance and emission flux of the anthropogenic iron oxide aerosols from the East Asian continental outflow. *Journal of Geophysical Research Atmosphere*, **122** (19) , 11194-11209, doi:10.1029/2018JD028665.
- 7\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols., *Journal of the Meteorological Society of Japan*.
- 8\* Ishimoto, H., R. Kudo, and K. Adachi, 2019: A shape model of internally mixed soot particles derived from artificial surface tension. *Atmospheric Measurement Techniques*, **12**, 107-118, doi:10.5194/amt-12-107-2019.
- 9\* Kajino, M., Sekiyama, T. T., Igarashi, Y., Katata, G., Sawada, M., Adachi, K., et al., 2019: Deposition and dispersion of radio – cesium released due to the Fukushima nuclear accident: Sensitivity to meteorological models and physical modules. *Journal of Geophysical Research*, **124**, 1823-1845.
- 10\* Tobo, Y., K. Adachi, P. J. DeMott, T. C. J. Hill, D. S. Hamilton, N. M. Mahowald, N. Nagatsuka, S. Ohata, J. Uetake, Y. Kondo, and M. Koike, 2019: Glacially sourced dust as a potentially significant source of ice nucleating particles. *Nature Geoscience*. (in press)
- 11 Kurisu, M., K. Adachi, K. Sakata, and Y. Takahashi, 2019: Stable isotope ratios of combustion iron produced by evaporation in a steel plant. *ACS Earth and Space Chemistry*. (in press)
- 12\* Igarashi, Y., K. Kita, T. Maki, T. Kinase, N. Hayashi, K. Hosaka, K. Adachi, M. Kajino, M. Ishizuka, T. T. Sekiyama, Y. Zaizen, C. Takenaka, K. Ninomiya, H. Okochi and A. Sorimachi , 2019: Fungal spore involvement in the resuspension of radiocaesium in summer. *Scientific Reports*, **9:1954**, doi:10.1038/s41598-018-37698-x.
- 足立 透 1\* F. J. Perez-Invernon, A. Luque, F. J. Gordillo-Vazquez, M. Sato, T. Ushio, T. Adachi, and A. B. Chen, 2018: Spectroscopic diagnostic of halos and elves detected from space-based photometers. *Journal of Geophysical Research Atmosphere*, doi:10.1029/2018JD029053.
- 2\* Yoshida, S., E. Yoshikawa, T. Adachi, K. Kusunoki, S. Hayashi, and H. Inoue, 2019: Three dimensional radio images of winter lightning in Japan and characteristics of associated charge structure. *IEEE Transactions on Electrical and Electronic Engineering*, **14**, 175-184, doi:10.1002/tee.22795.
- 荒木健太郎 1 荒木健太郎, 2018: 世界でいちばん素敵な雲の教室. *世界でいちばん素敵な雲の教室*,

三オブックス, 160pp, ISBN: 978-4-86673-033-2.

- 2 齊藤和雄, 國井勝, 荒木健太郎, 2018: 2011年8月26日首都圏豪雨の雲解像アンサンブル実験. *気象研究ノート*, **236**, 266-282.
  - 3 中井専入, 吉田聡, 荒木健太郎, 出世ゆかり, 岩波越, 鈴木真一, 橋本明弘, 本吉弘岐, 2018: 降雪状況の面的解析. 平成29年度科学研究費補助金(特別研究促進費)「2017年3月27日に栃木県那須町で発生した雪崩災害に関する調査研究」研究成果報告書, 45-46.
  - 4 荒木健太郎, 2018: 那須における表層雪崩発生に関わる低気圧性大雪の特性. 平成29年度科学研究費補助金(特別研究促進費)「2017年3月27日に栃木県那須町で発生した雪崩災害に関する調査研究」研究成果報告書, 52-57.
  - 5\* Saito, K., M. Kunii, and K. Araki, 2018: Cloud Resolving Simulation of a Local Heavy Rainfall Event on 26 August 2011 Observed in TOMACS. *Journal of the Meteorological Society of Japan*, **96A**, 175-199.
  - 6 Araki, K., 2018: High-resolution numerical simulation of wintertime orographic precipitation: representation of snowfall characteristics. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling*, **48**, 403-404.
  - 7 荒木健太郎, 2018: せきらんうんのいっしょう. *せきらんうんのいっしょう*, ジャムハウス, 24pp, ISBN: 4906768458.
  - 8 山下克也, 當房豊, 荒木健太郎, 佐藤陽祐, 三隅良平, 前田麻人, 岩田拓己, 森樹大, 岩本洋子, 村田浩太郎, 折笠成宏, 田尻拓也, 齋藤泉, 端野典平, 島伸一郎, 武田和弥, 郭朋君, 川合秀明, 山内晃, 藤原智貴, 堀田陽香, 熊谷幸基, 猪又淳之助, 大芦宏彰, 高橋麗, 酒井健人, 2018: 「2017年度エアロゾル・雲・降水の相互作用に関する研究集会」報告. *天気*, **65**, 521-528.
  - 9\* 荒木健太郎, 佐藤陽祐, 2018: エアロゾル・雲・降水相互作用の数値シミュレーション. *エアロゾル研究*, **33**, 152-161, doi:10.11203/jar.33.152.
  - 10 荒木健太郎, 2018: 冬の嵐をもたらす雲システム —日本海寒帯気団収束帯(JPCZ)による大雪—. *世界気象カレンダー2019年版*.
  - 11 荒木健太郎, 2018: 昆虫が切り拓く局地豪雨予測. *昆虫大学シラバス*, 68-69.
  - 12 荒木健太郎, 2018: ろっかのきせつ. *ろっかのきせつ*, ジャムハウス, 32pp, ISBN: 490676844X.
  - 13 荒木健太郎, 2018: 雪結晶を撮影しよう! 「#関東雪結晶 プロジェクト」. *理科教育ニュース*, **1062**, 2-3.
  - 14\* Ichikawa, R., T. Nagasaki, O. Tajima, H. Takiguchi, K. Araki, and T. Tajiri, 2019: Half-year Comparison of Precipitable Water Vapor Retrieved with Novel Ground-based Microwave Radiometer and GPS Receiver at Tsukuba and Numerical Weather Analysis Data. *Proceedings of the 2019 International Technical Meeting of The Institute of Navigation*, 660-664,
- 安藤 忍
- 1 安藤忍, 2018: ALOS-2/PALSAR-2 データを用いた西之島の地表変化. *火山噴火予知連絡会会報*, **129**, 202-208.
  - 2 安藤忍, 2018: 陸域観測技術衛星「だいち2号」(ALOS-2/PALSAR-2)を用いた合成開口レーダ(SAR)干渉解析. 平成28年(2016年)熊本地震調査報告, **135**, 35-45.
  - 3 安藤忍, 2018: ALOS-2/PALSAR-2 データを用いた西之島の地表変化. *火山噴火予知連絡会会報*, **130**, 179-186.
  - 4 安藤忍, 2019: ALOS-2/PALSAR-2 データを用いた西之島の地表変化. *火山噴火予知連絡会会報*, **131**, 220-229.

- 石井憲介 1 佐藤英一, 新堀敏基, 福井敬一, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測された 2018 年 1 月 23 日草津白根山噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **129**, 78-82.
- 2 佐藤英一, 福井敬一, 新堀敏基, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測した 2018 年 3 月から 5 月にかけての霧島山 (新燃岳) 噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **130**, 292-298.
- 石井雅男 1\* Sasano, D., Y. Takatani, N. Kosugi, T. Nakano, T. Midorikawa, and M. Ishii, 2018: Decline and bidecadal oscillation of dissolved oxygen in the Oyashio region and their propagation to the western North Pacific. . *Global Biogeochemical Cycles*, **32**, 909-931.
- 2\* Kudo K., K. Yamada, S. Toyoda, N. Yoshida, D. Sasano, N. Kosugi, M. Ishii, H. Yoshikawa, A. Murata, H. Uchida, and S. Nishino, 2018: Spatial distribution of dissolved methane and its source in the western Arctic Ocean. *Journal of Oceanography*, **74**, 305-317, doi:10.1007/s10872-017-0460-y.
- 3\* Oka, E., K. Yamada, D. Sasano, K. Enyo, T. Nakano, and M. Ishii, 2019: Remotely forced decadal physical and biogeochemical variability of North Pacific Subtropical Mode Water over the last 40 years. *Geophysical Research Letters*, **46**, doi:10.1029/2018GL081330.
- 4\* Gruber, N., D. Clement, B. R. Carter, R. A. Feely, S. van Heuven, M. Hoppema, M. Ishii, R. M. Key, A. Kozyr, S. K. Lauvset, C. Lo Monaco, J. T. Mathis, A. Murata, A. Olsen, F. F. Perez, C. L. Sabine, T. Tanhua, and R. Wanninkhof, 2019: The oceanic sink for anthropogenic CO<sub>2</sub> from 1994 to 2007. *Science*. (in press)
- 石井正好 1 石井 正好, 2018: 長期気候変動の再現と予測 - 歴史的観測データと地球システムモデル -. *日本原子力学会誌 アトモス*, **60**, 19-22.
- 2\* WCRP Global Sea Level Budget Group, 2018: Global Sea Level Budget 1993–Present . *Earth System Science Data*, **10**, 1551–1590, doi:10.5194/essd-10-1551-2018.
- 3\* Smith, D. M., A. A. Scaife, E. Hawkins, R. Bilbao, G. J. Boer, M. Caian, L.-P. Caron, G. Danabasoglu, T. Delworth, F. J. Doblas-Reyes, R. Doescher, N. J. Dunstone, R. Eade, L. Hermanson, M. Ishii, V. Kharin, M. Kimoto, T. Koenigk, Y. Kushnir, D. Matei, G., 2018: Predicted chance that global warming will temporarily exceed 1.5oC. *Geophysical Research Letters*, **45**, 1,895-11,903, doi:10.1029/2018GL079362.
- 4\* Fujita, M., R. Mizuta, M. Ishii, H. Endo, T. Sato, Y. Okada, S. Kawazoe, S. Sugimoto, K. Ishihara, and S. Watanabe, 2019: Precipitation changes in a climate with 2-K surface warming from large ensemble simulations using 60-km global and 20-km regional atmospheric models. *Geophysical Research Letters*, **46**, 435-442, doi:10.1029/2018GL079885.
- 石橋俊之 1\* Okamoto, K., T. Ishibashi, S. Ishii, P. Baron, K. Gamo, T. Y. Tanaka, K. Yamashita, and T. Kubota, 2018: Feasibility study for future space-borne coherent Doppler wind lidar. part 3: Impact assessment using sensitivity observing system simulation experiments.. *Journal of the Meteorological Society of Japan*, **96**, 179-199, doi.org/10.2151/jmsj.2018-024.
- 2\* Ishibashi, T., 2018: Adjoint-based observation impact estimation with direct verification using forward calculation. *Monthly Weather Review*, **146**,

2837-2858, doi:10.1175/MWR-D-18-0037.1.

- 石元裕史 1\* Hara, Y., T. Nishizawa, N. Sugimoto, K. Osada, K. Yumimoto, I. Uno, R. Kudo and H. Ishimoto, 2018: Retrieval of Aerosol Components Using Multi-Wavelength Mie-Raman Lidar and Comparison with Ground Aerosol Sampling. *Remote Sensing*, **10**, 937, doi:10.3390/rs10060937.
- 2 林勇太、石元裕史、稲沢智之, 2018: 火山灰. *気象研究ノート*, **238**, 99-113.
- 3\* Letu, H., T. M. Nagao, T. Y. Nakajima J. Riedi, H. Ishimoto, A. J. Baran, H. Shang, M. Sekiguchi, and M. Kikuchi, 2018: Ice cloud properties from Himawari-8/AHI next-generation geostationary satellite: Capability of the AHI to monitor the DC cloud generation process. *IEEE Transactions: Geoscience and Remote Sensing*, 1-11, doi:10.1109/TGRS.2018.2882803.
- 4\* Ishimoto, H., R. Kudo, and K. Adachi, 2019: A shape model of internally mixed soot particles derived from artificial surface tension. *Atmospheric Measurement Techniques*, **12**, 107-118, doi:10.5194/amt-12-107-2019.
- 5\* Sato, K., H. Okamoto, H. Ishimoto, 2019: Modeling the depolarization of space-borne lidar signals. *Optics Express*, **27**, A117-A132, doi:10.1364/OE.27.00A117.
- 猪上華子 1 鈴木 博人、藤原 忠誠、櫃間 智紀、楠 研一、猪上 華子, 2018: ドップラーレーダーを用いた突風に対する列車運転規制方法の開発と導入. *JREA*, **61**, 42281-42284.
- 2\* Yoshida, S., E. Yoshikawa, T. Adachi, K. Kusunoki, S. Hayashi, and H. Inoue, 2019: Three dimensional radio images of winter lightning in Japan and characteristics of associated charge structure. *IEEJ Transactions on Electrical and Electronic Engineering*, **14**, 175-184, doi:10.1002/tee.22795.
- 今田由紀子 1\* Scaife, A. A. et al., 2018: Tropical rainfall predictions from multiple seasonal forecast systems. *International Journal of Climatology*, doi:10.1002/joc.5855.
- 2\* Iizumi, T., H. Shiogama, Y. Imada, N. Hanasaki, H. Takikawa, and M. Nishimori, 2018: Crop production losses associated with anthropogenic climate change for 1981–2010 compared with preindustrial levels.. *International Journal of Climatology*, **38**, 5405-5417, doi:10.1002/joc.5818.
- 3\* Tsuguti, H., N. Seino, H. Kawase, Y. Imada, T. Nakaegawa, and I. Takayabu, 2019: Meteorological overview and mesoscale characteristics of the Heavy Rain Event of July 2018 in Japan. *Landslides*, **16**, 363 - 371.
- 4 C. Takahashi, M.Arai, M. Watanabe, H. Shiogama, Y. Imada, Y. Kosaka, M. Mori, and Y. Kamae, 2019: The effects of natural variability and climate change on the record low sunshine over Japan during August 2017. *Bull. Amer. Meteor. Soc.*, **100**, S67-S71.
- 入口武史 1\* Yamaguchi, M., H. Owada, U. Shimada, M. Sawada, T. Iriguchi, K. D. Musgrave, and M. DeMaria, 2018: Tropical Cyclone Intensity Prediction in the Western North Pacific Basin using SHIPS and JMA/GSM.. *SOLA*, **14**, 138-143, doi:10.2151/sola.2018-024.
- 2\* Shimada, U., H. Owada, M. Yamaguchi, T. Iriguchi, M. Sawada, K. Aonashi, M. DeMaria, and K. Musgrave, 2018: Further Improvements to the Statistical Hurricane Intensity Prediction Scheme Using Tropical Cyclone Rainfall and Structural Features . *Weather and Forecasting*, **33**, 1587-1603, doi:10.1175/WAF-D-18-0021.1.
- 3 山口宗彦, 嶋田宇大, 沢田雅洋, 入口武史, 大和田浩美, 2019: 台風予報・解析技術高度

化プロジェクトチームによる5日先台風強度予報ガイダンスの開発. *気象研究所技術報告*, **82**, 60, doi:10.11483/mritechrepo.82.

- 碓氷典久 1\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 浦川昇吾 1\* Tsujino, H., S. Urakawa, H. Nakano, Y. Harada, C. Kobayashi, S. Kobayashi, 他 25名, 2018: JRA-55 based surface dataset for driving ocean-sea-ice models (JRA55-do). *Ocean Modelling*, **130**, 79-139, doi:10.1016/j.ocemod.2018.07.002.
- 2\* Nakano, H., H. Tsujino, K. Sakamoto, S. Urakawa, T. Toyoda, and G. Yamanaka, 2018: Identification of the fronts from the Kuroshio Extension to the Subarctic Current using absolute dynamic topographies in satellite altimetry products. *Journal of Oceanography*, **74**, 393-420, doi:10.1007/s10872-018-0470-4.
- 3\* Suzuki, T., D. Yamazaki, H. Tsujino, Y. Komuro, H. Nakano, S. Urakawa, 2018: A dataset of continental river discharge based on JRA-55 for use in a global ocean circulation model. *Journal of Oceanography*, **74**, 421-429, doi:10.1007/s10872-017-0458-5.
- 4\* 坂本圭, 辻野博之, 中野英之, 浦川昇吾, 山中吾郎, 2018: Git と Redmine を用いた気象研究所共用海洋モデル「MRI.COM」の開発管理. *海の研究*, **27**, 175-188.
- 5 豊田隆寛, 岩本勉之, 浦川昇吾, 辻野博之, 中野英之, 坂本圭, 山中吾郎, 小室芳樹, 西野茂人, 浮田甚郎, 2019: 衛星観測の薄氷データを用いた海洋・海氷シミュレーションの改善. *月刊海洋*, **51**, 121-127.
- 6\* 浦川昇吾, 2019: 2018年度日本海洋学会岡田賞受賞記念論文: 海洋大循環のエネルギー収支に関する数値モデリング研究. *海の研究*, **28** (2), 19-40, doi:10.5928/kaiyou.28.2\_19.
- 7\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 遠藤洋和 1\* Endo, H., A. Kitoh, and H. Ueda, 2018: A unique feature of the Asian summer monsoon response to global warming: The role of different land-sea thermal contrast change between the lower and upper troposphere. *SOLA*, **14**, 57-63, doi:10.2151/sola.2018-010.
- 2\* Kawai, H., T. Koshiro, H. Endo, and O. Arakawa, 2018: Changes in Marine Fog over the North Pacific under Different Climates in CMIP5 Multi - Model Simulations. *Journal of Geophysical Research Atmosphere*, **123**, 10911-10924, doi:10.1029/2018JD028899.
- 3\* Fujita, M., R. Mizuta, M. Ishii, H. Endo, T. Sato, Y. Okada, S. Kawazoe, S. Sugimoto, K. Ishihara, and S. Watanabe, 2019: Precipitation changes in a climate with 2-K surface warming from large ensemble simulations using 60-km global and 20-km regional atmospheric models. *Geophysical Research Letters*, **46**, 435-442, doi:10.1029/2018GL079885.
- 4\* Kitoh, A. and H. Endo, 2019: Future changes in precipitation extremes associated with tropical cyclones projected by large-ensemble simulations. *Journal of the*

- Meteorological Society of Japan*, **97**, 141-152, doi:10.2151/jmsj.2019-007.
- 大河原望 1 Fountoulakis, I., C.S.Zerofos, A.F. Basis, J. Kapsomenakis, M.E. Koukouli, N. Ohkawara, V. Fioletov, H.D. Backer, K. Lakkala, T. Karppinen, and A.R. Webb, 2018: Twenty-five years of spectral UV-B measurements over Canada, Europe and Japan: Trends and effects from changes in ozone, aerosols, clouds, and surface reflectivity. *Comptes Rendus Geoscience*, **350**, 393-402, doi:10.1016/j.crte.2018.07.011.
- 大島 長 1\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols., *Journal of the Meteorological Society of Japan*.
- 大塚道子 1\* Otsuka, M., H. Seko, K. Shimoji, and K. Yamashita, 2018: Characteristics of Himawari-8 Rapid Scan Atmospheric Motion Vectors Utilized in Mesoscale Data Assimilation . *Journal of the Meteorological Society of Japan*, **96B**, 111-131, doi:10.2151/jmsj.2018-034.
- 2 Otsuka, M., J. Matsumoto, and H. Seko, 2019: Geostationary Satellite Data Assimilation in Mesoscale Forecast Sytems: A Review. *Geographical Reports of Tokyo Metropolitan University*, **54**, 1-10.
- 岡田 純 1\* 岡田純, 風早竜之介, 松本恵子, 三輪学央, 入山宙, 2019: 第10回火山都市国際会議参加報告. *火山*, **64** 巻第1号. (in press)
- 岡本幸三 1\* Okamoto, K., T. Ishibashi, S. Ishii, P. Baron, K. Gamo, T. Y. Tanaka, K. Yamashita, and T. Kubota, 2018: Feasibility study for future space-borne coherent Doppler wind lidar. part 3: Impact assessment using sensitivity observing system simulation experiments.. *Journal of the Meteorological Society of Japan*, **96**, 179-199, doi.org/10.2151/jmsj.2018-024.
- 2 岡本幸三, 別所康太郎, 吉崎徳人, 村田英彦, 2018: 静止気象衛星ひまわり 8号・9号とその利用. *気象研究ノート*, **238**, 日本気象学会, 187pp, ISBN: .
- 3 岡本幸三, 2018: データ同化. *気象研究ノート*, **238**, 169-183.
- 4\* Sawada, Y., K. Okamoto, M. Kunii, and T. Miyoshi, 2019: Assimilating every - 10 - minute Himawari - 8 infrared radiances to improve convective predictability. *Journal of Geophysical Research Atmosphere*, doi:10.1029/2018JD029643. (in press)
- 5\* Okamoto, K., Y. Sawada and M. Kunii, 2019: Comparison of assimilating all - sky and clear - sky infrared radiances from Himawari - 8 in a mesoscale system.. *Quarterly Journal of the Royal Meteorological Society*, 1-22, doi:10.2151/jmsj.2018-024.
- 小木曾 仁 1\* Ogiso, M., M. Hoshihara, A. Shito, and S. Matsumoto, 2018: Numerical Shake Prediction for Earthquake Early Warning Incorporating Heterogeneous Attenuation Structure: The Case of the 2016 Kumamoto Earthquake. *Bulletin of the Seismological Society of America*, **108**, 3457-3468, doi:10.1785/0120180063.
- 2\* Ogiso, M., 2019: A method for mapping intrinsic attenuation factors and scattering coefficients of S waves in 3-D space and its application in southwestern Japan.

- Geophysical Journal International*, **216**, 948-957, doi:10.1093/gji/ggy468.
- 小田真祐子 1\* Oda, M. and H. Kanehisa, 2019: A simple model of the resonant interaction between vortex Rossby and gravity waves. *Journal of the Meteorological Society of Japan*, **97**, 123-139, doi:10.2151/jmsj.2019-006.
- 鬼澤真也 1\* S. Onizawa, 2019: Apparent calibration shift of the Scintrex CG-5 gravimeter caused by reading-dependent scale factor and instrumental drift. *Journal of Geodesy*, doi:10.1007/s00190-019-01247-9. (in press)
- 小山 亮 1\* Oyama, R., M. Sawada, and K. Shimoji, 2018: Diagnosis of Tropical Cyclone Intensity and Structure Using Upper Tropospheric Atmospheric Motion Vectors. *Journal of the Meteorological Society of Japan*, **96B**, doi:10.2151/jmsj.2017-024.
- 2\* Wada, A., and R. Oyama, 2018: Relation of convective bursts to changes in the intensity of Typhoon Lionrock (2016) during the decay phase simulated by an atmosphere-wave-ocean coupled model. *Journal of the Meteorological Society of Japan*, **96**, 489-509, doi:10.2151/jmsj.2018-052.
- 折笠成宏 1 山下克也, 當房豊, 荒木健太郎, 佐藤陽祐, 三隅良平, 前田麻人, 岩田拓己, 森樹大, 岩本洋子, 村田浩太郎, 折笠成宏, 田尻拓也, 齋藤泉, 端野典平, 島伸一郎, 武田和弥, 郭朋君, 川合秀明, 山内晃, 藤原智貴, 堀田陽香, 熊谷幸基, 猪又淳之助, 大芦宏彰, 高橋麗, 酒井健人, 2018: 「2017年度エアロゾル・雲・降水の相互作用に関する研究集会」報告. *天気*, **65**, 521-528.
- 2 橋本明弘, 本吉弘岐, 三隅良平, 折笠成宏, 2018: 数値気象モデルによる降雪粒子予測の高度化. *北海道の雪氷*, **37**, 63-66.
- 梶野瑞王 1\* Mathieu, A., M. Kajino, I. Korsakissok, R. Pérrillat, D. Quélo, A. Quérel, O. Saunier, T. T. Sekiyama, Y. Igarashi, D. Didier, 2018: Fukushima Daiichi-derived radionuclides in the atmosphere, transport and deposition in Japan: A review. *Applied Geochemistry*, **91**, 122-139, doi:10.1016/j.apgeochem.2018.01.002.
- 2\* Kajino, M., T. T. Sekiyama, A. Mathieu, I. Korsakissok, R. Pérrillat, D. Quélo, A. Quérel, O. Saunier, K. Adachi, S. Girard, T. Maki, K. Yumimoto, D. Didier, O. Masson, Y. Igarashi,, 2018: Lessons learned from atmospheric modeling studies after the Fukushima nuclear accident: Ensemble simulations, data assimilation, elemental process modeling, and inverse modeling, . *Geochemical Journal*, **52 (2)** , 85-101, doi:10.2343/geochemj.2.0503.
- 3\* S. Hayashida, M. Kajino, M. Deushi, T. T. Sekiyama, X. Liu, 2018: Seasonality of the lower tropospheric ozone over China observed by the Ozone Monitoring Instrument. *Atmospheric Environment*, **184**, 244-253, doi:10.1016/j.atmosenv.2018.04.014.
- 4\* Ching, J. M. Kajino,, 2018: Aerosol mixing state matters for particles deposition in human respiratory system,. *Scientific Reports*, **8**, 8864, doi:10.1038/s41598-018-27156-z.
- 5\* 和田龍一, 定永靖宗, 加藤俊吾, 勝見直也, 大河内博, 岩本洋子, 三浦和彦, 小林拓, 鴨川仁, 松本淳, 米村正一郎, 松見豊, 梶野瑞王, 畠山史郎,, 2018: 山岳地域におけるNOx酸化物質 (NOz) 計測手法の開発と実大気への応用. *分析化学*, **67 (6)** , 333-340, doi:10.2116/bunsekikagaku.67.333.
- 6\* Kitayama, K., Y. Morino, M. Takigawa, T. Nakajima, H. Hayami, H. Nagai, H. Terada, K. Saito, T. Shimbori, M. Kajino, T. T. Sekiyama, D. Didier, A. Mathieu, D. Quelo, T. Ohara, H. Tsuruta, Y. Oura, M. Ebihara, Y. Moriguchi,

- and T. Shibata, 2018: Atmospheric modeling of  $^{137}\text{Cs}$  plumes from the Fukushima Daiichi Nuclear Power Plant - Evaluation of the model intercomparison data of the Science Council of Japan. *Journal of Geophysical Research Atmosphere*, **123**, 7754-7770, doi:10.1029/2017JD028230.
- 7\* Sahu LK, Tripathi N, Sheel V, Kajino M, Deushi M, Yadav R, Nedelec P, 2018: Impact of the tropical cyclone Nilam on the vertical distribution of carbon monoxide over Chennai on the Indian peninsula. *Quarterly Journal of the Royal Meteorological Society*, **144**, 1091-1105, doi:10.1002/qj.3276.
- 8\* Y. Inomata, M. Aoyama, T. Tsubono, D. Tsumune, Y. Kumamoto, H. Nagai, T. Yamagata, M. Kajino, Y. T. Tanaka, T. T. Sekiyama, E. Oka, M. Yamada, 2018: Estimate of Fukushima-derived radiocaesium in the North Pacific Ocean in summer 2012. *Journal of Radioanalytical and Nuclear Chemistry*, **318** (3) , 1587-1596.
- 9\* Inatsu, M., H. Suzuki, and M. Kajino, 2019: Relative Risk Assessment for Hypothetical Radioactivity Emission at a Snow Climate Site. *Journal of the Meteorological Society of Japan*, **97**(1), 175-190.
- 10\* Igarashi, Y., K. Kita, T. Maki, T. Kinase, N. Hayashi, K. Hosaka, K. Adachi, M. Kajino, M. Ishizuka, T. T. Sekiyama, Y. Zaizen, C. Takenaka, K. Ninomiya, H. Okochi and A. Sorimachi , 2019: Fungal spore involvement in the resuspension of radiocaesium in summer. *Scientific Reports*, **9:1954**, doi:10.1038/s41598-018-37698-x.
- 11\* Keiya Yumimoto, Mizuo Kajino, Taichu Y. Tanaka & Itsushi Uno, 2019: Dust Vortex in the Taklimakan Desert by Himawari-8 High Frequency and Resolution Observation. *Scientific Reports*, **9,1209**.
- 12\* 梶野瑞王, 2018: エアロゾル有害物質の肺沈着における粒径分布、吸湿性、ヒト条件の影響, 大気化学研究, 39, Article No. 039A01, 11 pp.
- 13\* Sato, Y., M. Takigawa, T. Sekiyama, M. Kajino, H. Terada, H. Nagai, H. Kondo, J. Uchida, D. Goto, D. Quélo, A. Mathieu, I. Korsakissok, A. Quérel, S. Fang, Y. Morino, P. von Schoenberg, H. Grahm, N. Brännström, S. Hirao, H. Tsuruta, H. Yamazawa, T. Nakajima, 2018: Model intercomparison of atmospheric  $^{137}\text{Cs}$  from the Fukushima Daiichi Nuclear Power Plant accident: Simulations based on identical input data, *J. Geophys. Res.*, **123**, 11,748-11,765, doi:10.1029/2018JD029144.
- 14\* Kajino, M., T. T. Sekiyama, Y. Igarashi, G. Katata, M. Sawada, K. Adachi, Y. Zaizen, H. Tsuruta, T. Nakajima, 2019. Deposition and dispersion of radio-cesium released due to the Fukushima nuclear accident: Sensitivity to meteorological models and physical modules, *J. Geophys. Res.*, **124**(3), 1823-1845, doi:10.1029/2018JD028998.
- 15\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, A. Takami, A. Shimizu, S. Hatakeyama, Y. Sadanaga, H. Irie, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami, 2019: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols, *J. Meteor. Soc. Japan*, **97**(2), doi:10.2151/jmsj.2019-020, 2019, published online.

- 16\* Danielache, S. O., Yoshikawa, C., Kajino, M., Itou, S., Takeya, W., Yoshida, N., Igarashi, Y., 2018: Radioactive <sup>35</sup>S emitted from the Fukushima Nuclear Power Plant and its re-suspension from the contaminated area, *Geochemical Journal*, 53. (published online)
- 17 Kajino, M., 2018: Chapter 6 Model simulation of atmospheric aerosols, in *Trans-Boundary Pollution in North-East Asia*, Eds. K. Hayakawa, S. Nagao, Y. Inomata, M. Inoue, and A. Matsuki, NOVA Science Publishers, ISBN:978-1-53614-742-2, 147-166.
- 18 梶野瑞王, 2018: 大気エアロゾルの環境動態シミュレーション, *安全工学*, 57(6), 433-441.
- 19 稲津将, 越石健太, 梶野瑞王, 2019: 新燃岳の噴火における火山灰の拡散沈着シミュレーション, 北海道大学地球物理学研究報告, in press.
- 勝間田明男 1\* Tsuji, S., K. Yamaoka, R. Ikuta, T. Kunitomo, T. Watanabe, Y. Yoshida, and A. Katsumata, 2018: Secular and coseismic changes in S-wave velocity detected using ACROSS in the Tokai region. *Earth, Planets and Space*, 70, 146, doi:10.1186/s40623-018-0917-2.
- 2\* Nakata, K., Y. Hayashi, H. Tsushima, K. Fujita, Y. Yoshida, and A. Katsumata, 2019: Performance of uniform and heterogeneous slip distributions for the modeling of the November 2016 off Fukushima earthquake and tsunami, Japan. *Earth, Planets and Space*, 71, 30, doi:10.1186/s40623-019-1010-1.
- 3\* Nakata K., A. Kobayashi, A. Katsumata, F. Hirose, T. Nishimiya, K. Kimura, H. Tsushima, K. Maeda, H. Baba, N. Hanamura, C. Yamada, and M. Kanezashi, 2019: Double seismic zone and seismicity in the mantle wedge beneath the Ogasawara Islands identified by an ocean bottom seismometer observation. *Earth, Planets and Space*, 71, 29, doi:10.1186/s40623-019-1012-z.
- 加藤輝之 1\* Kato, T., 2018: Representative height of the low-level water vapor field for examining the initiation of moist convection leading to heavy rainfall in East Asia. *Journal of the Meteorological Society of Japan*, 96, 69-83.
- 釜堀弘隆 1\* Kamahori, H., and O. Arakawa, 2018: Tropical Cyclone Induced Precipitation over Japan Using Observational Data. *SOLA*, 14, 165-169, doi:10.2151/sola.2018-029.
- 川合秀明 1 山下克也, 當房豊, 荒木健太郎, 佐藤陽祐, 三隅良平, 前田麻人, 岩田拓己, 森樹大, 岩本洋子, 村田浩太郎, 折笠成宏, 田尻拓也, 齋藤泉, 端野典平, 島伸一郎, 武田和弥, 郭朋君, 川合秀明, 山内晃, 藤原智貴, 堀田陽香, 熊谷幸基, 猪又淳之助, 大芦宏彰, 高橋麗, 酒井健人, 2018: 「2017年度エアロゾル・雲・降水の相互作用に関する研究集会」報告. *天気*, 65, 521-528.
- 2\* Kawai, H., T. Koshiro, H. Endo, and O. Arakawa, 2018: Changes in Marine Fog over the North Pacific under Different Climates in CMIP5 Multi - Model Simulations. *Journal of Geophysical Research Atmosphere*, 123, 10911-10924, doi:10.1029/2018JD028899.
- 川口亮平 1\* Kondo, G., H. Aoyama, T. Nishimura, M. Ripepe, G. Lacanna, R. Genco, R. Kawaguchi, T. Yamada, T. Miwa, and E. Fujita, 2019: Gas flux cyclic regime at an open vent magmatic column inferred from seismic and acoustic records. *Scientific Reports*. (in press)
- 川瀬宏明 1\* Kawase, H., T. Sasai, T. Yamazaki, R. Ito, K. Dairaku, S. Sugimoto, H. Sasaki, A. Murata, M. Nosaka, 2018: Characteristics of synoptic conditions for heavy

- snowfall in western to northeastern Japan analyzed by the 5-km regional climate ensemble experiments. *Journal of the Meteorological Society of Japan*, **96**, 161-178, doi:10.2151/jmsj.2018-022.
- 2\* Sugimoto, S., R. Ito, K. Dairaku, H. Kawase, H. Sasaki, S. Watanabe, Y. Okada, S. Kawazoe, T. Yamazaki, T. Sasai, 2018: Impacts of spatial resolution in dynamical downscaling simulation on the consecutive dry days and near surface temperature over the central mountains in Japan. *SOLA*, **14**, 46-51, doi:10.2151/sola.2018-008.
- 3\* 星野剛, 山田朋人, 稲津将, 佐藤友徳, 川瀬宏明, 杉本志織, 2018: 大量アンサンブル気候予測データを用いた大雨の時空間特性とその将来変化の分析. *土木学会論文集*.
- 4 丸谷靖幸, 原田守啓, 伊東瑠衣, 川瀬宏明, 大楽浩司, 佐々木秀孝, 2018: 気候変動影響評価に向けた降雨分布の空間解像度が流出解析に与える影響に関する検討. *土木学会論文集 G (環境)*, **74**, 147-156.
- 5 丸谷靖幸, 原田守啓, 伊東瑠衣, 川瀬宏明, 大楽浩司, 佐々木秀孝, 2018: 気候変動影響評価に向けた気候モデルおよび影響評価モデルの不確実性の関係性の評価. *土木学会論文集 B1(水工学)*, **74**, 5.
- 6 原田守啓, 丸谷靖幸, 伊東瑠衣, 石崎紀子, 川瀬宏明, 大楽浩司, 佐々木秀孝, 2018: JRA-55 再解析データのダウンスケーリング実験における地形モデル選択が洪水流出解析に及ぼす影響. *土木学会論文集 B1 (水工学)*, **74**, 147-156.
- 7\* Ito, R., T. Aoyagi, N. Hori, M. Oh'izumi, H. Kawase, K. Dairaku, N. Seino, and H. Sasaki, 2018: Improvement of Snow Depth Reproduction in Japanese Urban Areas by the Inclusion of a Snowpack Scheme in the SPUC Model. *Journal of the Meteorological Society of Japan*, **96**, 511-534, doi:10.2151/jmsj.2018-053.
- 8 川瀬宏明, 飯田肇, 青木一真, 島田互, 野坂真也, 村田昭彦, 佐々木秀孝, 2019: 立山黒部アルペンルートにおける積雪観測と異なる水平解像度の非静力学地域気候モデル(NHRCM)を用いた積雪再現実験の比較. *地学雑誌*. (in press)
- 9\* Yamazaki, A., M. Honda, and H. Kawase, 2019: Regional snowfall distributions in a Japan-Sea side area of Japan associated with jet variability and blocking. . *Journal of the Meteorological Society of Japan*, **97**, 205-226.
- 10\* TSUGUTI, H., N. SEINO, H. KAWASE, Y. IMADA, T. NAKAEGAWA, and I. TAKAYABU, 2019: Meteorological overview and mesoscale characteristics of the Heavy Rain Event of July 2018 in Japan. *Landslides*, **16**, 363-371.
- 川畑拓矢 1\* Kawabata, T., H.-S. Bauer, T. Schwitalla, V. Wulfmeyer, and A. Adachi, 2018: Evaluation of forward operators for polarimetric radars aiming for data assimilation. *Journal of the Meteorological Society of Japan*, **96A**, 157-174, doi:10.2151/jmsj.2018-017.
- 2 Kawabata, T. and Y. Shoji, 2018: Applications of GNSS Slant Path Delay Data on Meteorology at Storm Scales. *Multifunctional Operation and Application of GPS*, 143-168, doi:10.5772/intechopen.75101.
- 3 川畑 拓矢, 2018: 雲解像 4 次元変分法データ同化システム. *気象研究ノート「都市における極端気象の観測・予測・情報伝達」*, **236**, 日本気象学会, 401pp, ISBN: 978-904129-19-7.
- 4 川畑拓矢, 上野玄太, 中野慎也, 藤井陽介, 三好建正, 小守信正, 増田周平, 茂木耕作, 中村和幸, 杉本憲彦, 前島康光, Le Duc, 小槻峻司, 須藤明人, 杉浦望実, 釜塚弘隆, 2018: 第 8 回データ同化ワークショップの報告. *天気*, **65**, 330-333.

- 5\* Kawabata, T., T. Schwitalla, A. Adachi, H.-S. Bauer, V. Wulfmeyer, N. Nagumo, and H. Yamauchi, 2018: Observational operators for dual polarimetric radars in variational data assimilation systems (PolRad VAR v1.0). *Geoscientific Model Development*, **11**, 2493-2501, doi:10.5194/gmd-11-2493-2018.
- 川端康弘 1\* 椎名達雄, 千秋博紀, 乙部直人, はしもとじょーじ, 川端康弘, 2018: ローバ搭載用 LED ミニライダーの開発とダストの挙動観測. *日本リモートセンシング学会誌*, **38(4)**, 317-324.
- 2\* 川端康弘, 清野直子, 田中泰宙, 青柳曉典, 2018: 都市における冬季夜間の気温低下抑制の要因に関する感度実験. *日本ヒートアイランド学会論文集*, **13**, 7-15.
- 3\* 川端康弘, 山本哲, 志藤文武, 清野直子, 2018: 観測環境の違いによる気温の鉛直分布と変動の特徴について. *風工学シンポジウム論文集*, **25**, 139-144.
- 北村祐二 1\* Nishizawa, S. and Y. Kitamura, 2018: A surface flux scheme based on the Monin-Obukhov similarity for finite volume models. *Journal of Advances in Modeling Earth Systems*, **10**, 3159-3175, doi:10.1029/2018MS001534.
- 楠 研一 1 佐藤英一, 楠研一, 2018: Ku バンド高速スキャンレーダーで見た積乱雲内の降水コアの動態. *気象研究ノート* 第 236 号「都市における極端気象の観測・予測・情報伝達」, 48-57.
- 2 楠 研一, 2018: 地上気象観測網の概念. *気象研究ノート*, **236**, 45-47.
- 3 楠 研一, 2018: 非降水エコーで可視化された局地前線と積乱雲発生過程の解析. *気象研究ノート*, **236**, 91-96.
- 4 鈴木 博人, 藤原 忠誠, 櫃間 智紀, 楠 研一, 猪上 華子, 2018: ドップラーレーダーを用いた突風に対する列車運転規制方法の開発と導入. *JREA*, **61**, 42281-42284.
- 5\* Yoshida, S., E. Yoshikawa, T. Adachi, K. Kusunoki, S. Hayashi, and H. Inoue, 2019: Three dimensional radio images of winter lightning in Japan and characteristics of associated charge structure. *IEEE Transactions on Electrical and Electronic Engineering*, **14**, 175-184, doi:10.1002/tee.22795.
- 工藤 玲 1\* Uchiyama, A., B. Chen, A. Yamazaki, G. Shi, R. Kudo, C. Nishita-Hara, M. Hayashi, A. Habib, T. Matsunaga, 2018: Aerosol Optical Characteristics in Fukuoka and Beijing Measured by Integrating Nephelometer and Aethalometer: Comparison of Source and Downstream Regions. *Journal of the Meteorological Society of Japan*, **96**, 215-240, doi:10.2151/jmsj.2018-026.
- 2 R. Kudo, T. Nishizawa, A. Higurashi, and E. Oikawa, 2018: Remote sensing of aerosols by synergy of CALIOP and MODIS. *28th International Laser Radar Conference, Conference Proceeding*, doi:10.1051/epjconf/201817608012.
- 3 Nishizawa, T., N. Sugimoto, A. Shimizu, I. Uno, Y. Hara, and R. Kudo, 2018: Aerosol observation using multi-wavelength Mie-Raman lidars of the Ad-Net and aerosol component analysis. *28th International Laser Radar Conference, Conference Proceeding*, doi:10.1051/epjconf/201817609005.
- 4\* R. Kudo, T. Aoyagi, T. Nishizawa, 2018: Characteristics of aerosol vertical profiles in Tsukuba, Japan, and their impacts on the evolution of the atmospheric boundary layer. *Atmospheric Measurement Techniques*, **11**, 3031-3046, doi:10.5194/amt-11-3031-2018.
- 5\* Hara, Y., T. Nishizawa, N. Sugimoto, K. Osada, K. Yumimoto, I. Uno, R. Kudo and H. Ishimoto, 2018: Retrieval of Aerosol Components Using Multi-Wavelength Mie-Raman Lidar and Comparison with Ground Aerosol Sampling. *Remote Sensing*, **10**, 937, doi:10.3390/rs10060937.

- 6\* Ishimoto, H., R. Kudo, and K. Adachi, 2019: A shape model of internally mixed soot particles derived from artificial surface tension. *Atmospheric Measurement Techniques*, **12**, 107-118, doi:10.5194/amt-12-107-2019.
- 小泉 耕 1 Seko, H., K. Koizumi, T. Yoshihara, A. Senoguchi and T. Koga, 2018: Data assimilation experiments of SSR mode-s downlink data using Meso-NAPEX system of JMA. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling/WMO*, **48**, 1-21.
- 小久保一哉 1\* Honda, R., Y. Yukutake, Y. Morita, S. Sakai, K. Itadera, and K. Kokubo, 2018: Precursory tilt changes associated with a phreatic eruption of the Hakone volcano and the corresponding source model. *Earth, Planets and Space*, **70**, 117, doi:10.1186/s40623-018-0887-4.
- 小杉如央 1\* Sasano, D., Y. Takatani, N. Kosugi, T. Nakano, T. Midorikawa, and M. Ishii, 2018: Decline and bidecadal oscillation of dissolved oxygen in the Oyashio region and their propagation to the western North Pacific. *Global Biogeochemical Cycles*, **32**, 909-931.
- 2\* Kudo K., K. Yamada, S. Toyoda, N. Yoshida, D. Sasano, N. Kosugi, M. Ishii, H. Yoshikawa, A. Murata, H. Uchida, and S. Nishino, 2018: Spatial distribution of dissolved methane and its source in the western Arctic Ocean. *Journal of Oceanography*, **74**, 305-317, doi:10.1007/s10872-017-0460-y.
- 小寺祐貴 1\* Kodera, Y., Y. Yamada, K. Hirano, K. Tamaribuchi, S. Adachi, N. Hayashimoto, M. Morimoto, M. Nakamura, and M. Hoshiba, 2018: The Propagation of Local Undamped Motion (PLUM) method: a simple and robust seismic wavefield estimation approach for earthquake early warning. *Bulletin of the Seismological Society of America*, **108(2)**, 983-1003, doi:10.1785/0120170085.
- 小林昭夫 1\* K.Z. Nanjo, K. Miyaoka , K. Tamaribuchi , A. Kobayashi , A. Yoshida, 2018: Related spatio-temporal changes in hypocenters and the b value in the 2017 Kagoshima Bay swarm activity indicating a rise of hot fluids. *Tectonophysics*, **749**, 35-45, doi:10.1016/j.tecto.2018.10.023.
- 2\* Nakata K., A. Kobayashi, A. Katsumata, F. Hirose, T. Nishimiya, K. Kimura, H. Tsushima, K. Maeda, H. Baba, N. Hanamura, C. Yamada, and M. Kanezashi, 2019: Double seismic zone and seismicity in the mantle wedge beneath the Ogasawara Islands identified by an ocean bottom seismometer observation. *Earth, Planets and Space*, **71**, 29, doi:10.1186/s40623-019-1012-z.
- 小林ちあき 1 古林 慎哉, 原田 昌, 小林 ちあき, 原田 やよい, 大島 和裕, 中村 尚, 福井 真, 藤原 正智, 山崎 哲, 芳村 圭, 2018: 第5回再解析国際会議報告. *天気*, **65**, 431-439.
- 2\* Tsujino, H., S. Urakawa, H. Nakano, Y. Harada, C. Kobayashi, S. Kobayashi, 他 25 名, 2018: JRA-55 based surface dataset for driving ocean-sea-ice models (JRA55-do). *Ocean Modelling*, **130**, 79-139, doi:10.1016/j.ocemod.2018.07.002.
- 3\* Kodera, K., N. Eguchi, R. Ueyama, Y. Kuroda, C. Kobayashi, B. M. Funatsu, and C. Claud, 2019: Implication of tropical lower stratospheric cooling in recent trends in tropical circulation and deep convective activity. *Atmospheric Chemistry and Physics*, **19**, 2655-2669, doi:10.5194/acp-19-2655-2019.
- 近藤圭一 1\* Hatfield, S., P. Duben, M. Chantry, K. Kondo, T. Miyoshi, and T. Palmer, 2018: Choosing the Optimal Numerical Precision for Data Assimilation in the Presence of Model Error. *Journal of Advances in Modeling Earth Systems*, **10**,

- 2177-2191, doi:10.1029/2018MS001341.
- 財前祐二 1\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols., *Journal of the Meteorological Society of Japan*.
- 2\* Kajino, M., Sekiyama, T. T., Igarashi, Y., Katata, G., Sawada, M., Adachi, K., et al., 2019: Deposition and dispersion of radio-cesium released due to the Fukushima nuclear accident: Sensitivity to meteorological models and physical modules. *Journal of Geophysical Research*, **124**, 1823-1845.
- 3\* Igarashi, Y., K. Kita, T. Maki, T. Kinase, N. Hayashi, K. Hosaka, K. Adachi, M. Kajino, M. Ishizuka, T. T. Sekiyama, Y. Zaizen, C. Takenaka, K. Ninomiya, H. Okochi and A. Sorimachi , 2019: Fungal spore involvement in the resuspension of radiocaesium in summer. *Scientific Reports*, **9:1954**, doi:10.1038/s41598-018-37698-x.
- 酒井 哲 1\* Sakai, T., T. Nagai, T. Izumi, S. Yoshida, and Y. Shoji, 2019: Automated compact mobile Raman lidar for water vapor measurement: instrument description and validation by comparison with radiosonde, GNSS, and high-resolution objective analysis. *Atmospheric Measurement Techniques*, **12**, 313-326, doi:10.5194/amt-12-313-2019.
- 坂本 圭 1\* Nakano, H., H. Tsujino, K. Sakamoto, S. Urakawa, T. Toyoda, and G. Yamanaka, 2018: Identification of the fronts from the Kuroshio Extension to the Subarctic Current using absolute dynamic topographies in satellite altimetry products. *Journal of Oceanography*, **74**, 393-420, doi:10.1007/s10872-018-0470-4.
- 2\* 坂本圭, 辻野博之, 中野英之, 浦川昇吾, 山中吾郎, 2018: Git と Redmine を用いた気象研究所共用海洋モデル「MRI.COM」の開発管理. *海の研究*, **27**, 175-188.
- 3 豊田隆寛, 岩本勉之, 浦川昇吾, 辻野博之, 中野英之, 坂本圭, 山中吾郎, 小室芳樹, 西野茂人, 浮田甚郎, 2019: 衛星観測の薄氷データを用いた海洋・海氷シミュレーションの改善. *月刊海洋*, **51**, 121-127.
- 4\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 佐々木秀孝 1\* Kawase, H., T. Sasai, T. Yamazaki, R. Ito, K. Dairaku, S. Sugimoto, H. Sasaki, A. Murata, M. Nosaka, 2018: Characteristics of synoptic conditions for heavy snowfall in western to northeastern Japan analyzed by the 5-km regional climate ensemble experiments. *Journal of the Meteorological Society of Japan*, **96**, 161-178, doi:10.2151/jmsj.2018-022.
- 2\* S. Sugimoto, R. Ito, K. Dairaku, H. Kawase, H. Sasaki, S. Watanabe, Y. Okada, S. Kawazoe, T. Yamazaki, T. Sasai, 2018: Impacts of spatial resolution in dynamical downscaling simulation on the consecutive dry days and near surface temperature over the central mountains in Japan. *SOLA*, **14**, 46-51, doi:10.2151/sola.2018-008.

- 3 丸谷靖幸, 原田守啓, 伊東瑠衣, 川瀬宏明, 大楽浩司, 佐々木秀孝, 2018: 気候変動影響評価に向けた降雨分布の空間解像度が流出解析に与える影響に関する検討. *土木学会論文集 G (環境)*, **74**, 147-156.
- 4 Mau, N. D., N. M. Truong, H. Sasaki, and I. Takayabu, 2018: A study of seasonal rainfall in Vietnam at the end of 21st century according to the Non-Hydrostatic Regional Climate Model. . *Vietnam Journal of Science, Technology and Engineering*, **60**, 89-96, doi:10.31276/VJSTE.60(3).89.
- 5 丸谷靖幸, 原田守啓, 伊東瑠衣, 川瀬宏明, 大楽浩司, 佐々木秀孝, 2018: 気候変動影響評価に向けた気候モデルおよび影響評価モデルの不確実性の関係性の評価. *土木学会論文集 B1(水工学)*, **74**, 5.
- 6 原田守啓, 丸谷靖幸, 伊東瑠衣, 石崎紀子, 川瀬宏明, 大楽浩司, 佐々木秀孝, 2018: JRA-55 再解析データのダウンスケーリング実験における地形モデル選択が洪水流出解析に及ぼす影響. *土木学会論文集 B1 (水工学)*, **74**, 147-156.
- 7\* Ito, R., T. Aoyagi, N. Hori, M. Oh'izumi, H. Kawase, K. Dairaku, N. Seino, and H. Sasaki, 2018: Improvement of Snow Depth Reproduction in Japanese Urban Areas by the Inclusion of a Snowpack Scheme in the SPUC Model. *Journal of the Meteorological Society of Japan*, **96**, 511-534, doi:10.2151/jmsj.2018-053.
- 8 川瀬宏明, 飯田肇, 青木一真, 島田互, 野坂真也, 村田昭彦, 佐々木秀孝, 2019: 立山黒部アルペンルートにおける積雪観測と異なる水平解像度の非静力学地域気候モデル(NHRCM)を用いた積雪再現実験の比較. *地学雑誌*. (in press)
- 佐藤英一 1 佐藤英一, 楠研一, 2018: Ku バンド高速スキャンレーダーで見た積乱雲内の降水コアの動態. *気象研究ノート第 236 号「都市における極端気象の観測・予測・情報伝達」*, 48-57.
- 2\* Sato, E, K. Fukui, and T. Shimbori, 2018: Aso volcano eruption on October 8, 2016, observed by weather radars. *Earth, Planets and Space*, **70:105**, 1-8, doi:10.1186/s40623-018-0879-4.
- 3 佐藤英一, 新堀敏基, 福井敬一, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測された 2018 年 1 月 23 日草津白根山噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **129**, 78-82.
- 4 佐藤英一, 2018: Ku バンド高速スキャンレーダーによる降水コアの観測と気象レーダーを用いた火山噴煙観測計画について. *気象研究ノート第 237 号「気象レーダー 60 年の歩みと将来展望」*, 246-251.
- 5\* Yokota, S., H. Seko, M. Kunii, H. Yamauchi, and E. Sato, 2018: Improving short-term rainfall forecasts by assimilating weather radar reflectivity using additive ensemble perturbations. *Journal of Geophysical Research Atmosphere*, **123**, 9047-9062, doi:10.1029/2018JD028723.
- 6 佐藤英一, 福井敬一, 新堀敏基, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測した 2018 年 3 月から 5 月にかけての霧島山 (新燃岳) 噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **130**, 292-298.
- 7 小林文明, 佐藤英一, 野田稔, 友清衣利子, 佐々浩司, 岩下久人, 長尾文明, ガヴァンスキ江梨, 竹内崇, 堤拓哉, 大嶋勝利, 高橋弘樹, 高森浩治, 森山英樹, 吉田昭仁, 2019: 【速報】台風 1821 号 (JEBI) がもたらした広域強風災害について. *日本風工学会誌*, **44**, 44-53.
- 8 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 佐藤英一, 2019: 高解像度アンサンブル予報を用いた竜巻の発生要因の解析. *月刊海洋号外「新野宏教授退職記念号」*. (in press)

- 澤 庸介 1\* Umezawa, T., H. Matsueda, Y. Sawa, Y. Niwa, T. Machida, and L. Zhou, 2018: Seasonal evaluation of tropospheric CO<sub>2</sub> over the Asia-Pacific region observed by the CONTRAIL commercial airliner measurements. *Atmospheric Chemistry and Physics*, **18**, 14851-14866.
- 沢田雅洋 1\* Oyama, R., M. Sawada, and K. Shimoji, 2018: Diagnosis of Tropical Cyclone Intensity and Structure Using Upper Tropospheric Atmospheric Motion Vectors. *Journal of the Meteorological Society of Japan*, **96B**, doi:10.2151/jmsj.2017-024.
- 2\* Ito, K., M. Sawada, and M. Yamaguchi, 2018: Tropical cyclone forecasts in the Western North Pacific with high-resolution atmosphere and coupled models. *気象研究所研究報告*, **67**, 15-34.
- 3\* 伊藤耕介, 沢田雅洋, 山口宗彦, 2018: 高解像度大気モデル及び大気海洋結合モデルを用いた北西太平洋全域台風予測実験. *気象研究所研究報告*, **67**, 15-34, doi:10.2467/mripapers.67.15.
- 4\* Yamaguchi, M., H. Owada, U. Shimada, M. Sawada, T. Iriguchi, K. D. Musgrave, and M. DeMaria, 2018: Tropical Cyclone Intensity Prediction in the Western North Pacific Basin using SHIPS and JMA/GSM.. *SOLA*, **14**, 138-143, doi:10.2151/sola.2018-024.
- 5\* Shimada, U., H. Owada, M. Yamaguchi, T. Iriguchi, M. Sawada, K. Aonashi, M. DeMaria, and K. Musgrave, 2018: Further Improvements to the Statistical Hurricane Intensity Prediction Scheme Using Tropical Cyclone Rainfall and Structural Features . *Weather and Forecasting*, **33**, 1587-1603, doi:10.1175/WAF-D-18-0021.1.
- 6 山口宗彦, 嶋田宇大, 沢田雅洋, 入口武史, 大和田浩美, 2019: 台風予報・解析技術高度化プロジェクトチームによる5日先台風強度予報ガイダンスの開発. *気象研究所技術報告*, **82**, 60, doi:10.11483/mritechrepo.82.
- 澤田洋平 1\* Sawada, Y., 2018: Quantifying drought propagation from soil moisture to vegetation dynamics using a newly developed ecohydrological land reanalysis. *Remote Sensing*, **10**, 1197, doi:10.3390/rs10081197.
- 2\* 筒井浩行, 澤田洋平, 小池俊雄, 2018: ブラジル北東域における2005年歴史的渇水の植生動態-陸面結合データ同化によるモニタリング. *水工学論文集*. (in press)
- 3\* Sawada, Y., K. Okamoto, M. Kunii, and T. Miyoshi, 2019: Assimilating every - 10 - minute Himawari - 8 infrared radiances to improve convective predictability. *Journal of Geophysical Research Atmosphere*, doi:10.1029/2018JD029643. (in press)
- 4\* Okamoto, K., Y. Sawada and M. Kunii, 2019: Comparison of assimilating all - sky and clear - sky infrared radiances from Himawari - 8 in a mesoscale system.. *Quarterly Journal of the Royal Meteorological Society*, 1-22, doi:10.2151/jmsj.2018-024.
- 嶋田宇大 1\* Yamaguchi, M., H. Owada, U. Shimada, M. Sawada, T. Iriguchi, K. D. Musgrave, and M. DeMaria, 2018: Tropical Cyclone Intensity Prediction in the Western North Pacific Basin using SHIPS and JMA/GSM.. *SOLA*, **14**, 138-143, doi:10.2151/sola.2018-024.
- 2\* Shimada, U., and T. Horinouchi, 2018: Reintensification and Eyewall Formation in Strong Shear: A Case Study of Typhoon Noul (2015). *Monthly Weather Review*, **146**, 2799-2817, doi:10.1175/MWR-D-18-0035.1.

- 3\* Shimada, U., H. Owada, M. Yamaguchi, T. Iriguchi, M. Sawada, K. Aonashi, M. DeMaria, and K. Musgrave, 2018: Further Improvements to the Statistical Hurricane Intensity Prediction Scheme Using Tropical Cyclone Rainfall and Structural Features . *Weather and Forecasting*, **33**, 1587-1603, doi:10.1175/WAF-D-18-0021.1.
- 4 山口宗彦, 嶋田宇大, 沢田雅洋, 入口武史, 大和田浩美, 2019: 台風予報・解析技術高度化プロジェクトチームによる 5 日先台風強度予報ガイダンスの開発. *気象研究所技術報告*, **82**, 60, doi:10.11483/mritechrepo.82.
- 5 嶋田宇大, 小山亮, 清水慎吾, 2019: 台風第 21 号の上陸に伴う内部構造の劇的変化及びメソ渦と突風の関係. 「平成 30 年台風 21 号による強風・高潮災害の総合研究」報告書. (in press)
- 小司禎教 1 小司禎教, 2018: 船舶の安全航行に不可欠な衛星測位システムを用いた豪雨予測研究について. *月報 Captain*, **444**, 2-5.
- 2 小司禎教, 2018: ローカルな水蒸気変動の GPS/GNSS による解析. *気象研究ノート「都市における極端気象の観測・予測・情報伝達」*, **236**, 74-81.
- 3\* Oigawa, M., T. Tsuda, H. Seko, Y. Shoji, and E. Realini, 2018: Data assimilation experiment of precipitable water vapor observed by a hyper-dense GNSS receiver network using a nested NHM-LETKF system. *Earth, Planets and Space*, **70**, 70-74, doi:10.1186/s40623-018-0851-3.
- 4 Kawabata, T. and Y. Shoji, 2018: Applications of GNSS Slant Path Delay Data on Meteorology at Storm Scales. *Multifunctional Operation and Application of GPS*, 143-168, doi:10.5772/intechopen.75101.
- 5\* Kato, T., Yukihiro Terada, Keiichi Tadokoro, Natsuki Kinugasa, Akira Futamura, Morio Toyoshima, Shin-ichi Yamamoto, Mamoru Ishii, Takuya Tsugawa, Michi Nishioka, Kenichi Takizawa, Yoshinori Shoji, and Hiromu Seko, 2018: Development of GNSS Buoy for a Synthetic Geohazard Monitoring System. *Journal of Disaster Research*, **13**, 460-471, doi:10.20965/jdr.2018.p0460.
- 6\* Sakai, T., T. Nagai, T. Izumi, S. Yoshida, and Y. Shoji, 2019: Automated compact mobile Raman lidar for water vapor measurement: instrument description and validation by comparison with radiosonde, GNSS, and high-resolution objective analysis. *Atmospheric Measurement Techniques*, **12**, 313-326, doi:10.5194/amt-12-313-2019.
- 新堀敏基 1\* Sato, E, K. Fukui, and T. Shimbori, 2018: Aso volcano eruption on October 8, 2016, observed by weather radars. *Earth, Planets and Space*, **70:105**, 1-8, doi:10.1186/s40623-018-0879-4.
- 2 佐藤英一, 新堀敏基, 福井敬一, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測された 2018 年 1 月 23 日草津白根山噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **129**, 78-82.
- 3\* Kitayama, K., Y. Morino, M. Takigawa, T. Nakajima, H. Hayami, H. Nagai, H. Terada, K. Saito, T. Shimbori, M. Kajino, T. T. Sekiyama, D. Didier, A. Mathieu, D. Quelo, T. Ohara, H. Tsuruta, Y. Oura, M. Ebihara, Y. Moriguchi, and T. Shibata, 2018: Atmospheric modeling of <sup>137</sup>Cs plumes from the Fukushima Daiichi Nuclear Power Plant - Evaluation of the model intercomparison data of the Science Council of Japan. *Journal of Geophysical Research Atmosphere*, **123**, 7754-7770, doi:10.1029/2017JD028230.
- 4 佐藤英一, 福井敬一, 新堀敏基, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測した

2018年3月から5月にかけての霧島山（新燃岳）噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **130**, 292-298.

- 鈴木 修 1 石原正仁, 鈴木修, 山内洋, 2018: 気象研究所における気象レーダー研究. *気象レーダー60年の歩みと将来展望*, *気象研究ノート*, **237**, 158-171.
- 清野直子 1\* Bélaïr, S, S. Leroyer, N. Seino, L. Spacek, V. Souvanlassy, and D. Paquin-Ricard, 2018: Role and Impact of the Urban Environment in a Numerical Forecast of an Intense Summertime Precipitation Event over Tokyo. *Journal of the Meteorological Society of Japan*, **96A**, 77-94.
- 2\* Sugawara, H., R. Oda, and N. Seino, 2018: Urban thermal influence on the precipitation system. *Journal of the Meteorological Society of Japan*, **96A**, 67-76.
- 3\* Seino, N., R. Oda, H. Sugawara, and T. Aoyagi, 2018: Observations and Simulations of the Mesoscale Environment in TOMACS Urban Heavy Rain Events. *Journal of the Meteorological Society of Japan*, **96A**, 221-245.
- 4 小田僚子, 清野直子, 2018: 夏期のラジオゾンデ観測の概要と都市における混合層高度の解析. *気象研究ノート*, 第**236**号, 31-35.
- 5 清野直子, 2018: 短時間強雨事例の大気環境場. *気象研究ノート*, 第**236**号, 36-44.
- 6 Wada, A., and N. Seino, 2018: Numerical simulations on a local heavy rainfall event south of Kanto region by using a coupled atmosphere-wave-ocean model with the regional air-sea coupled data assimilation system based on NHM-LETKF. *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 9-03.
- 7\* 川端康弘, 清野直子, 田中泰宙, 青柳曉典, 2018: 都市における冬季夜間の気温低下抑制の要因に関する感度実験. *日本ヒートアイランド学会論文集*, **13**, 7-15.
- 8\* Ito, R., T. Aoyagi, N. Hori, M. Oh'izumi, H. Kawase, K. Dairaku, N. Seino, and H. Sasaki, 2018: Improvement of Snow Depth Reproduction in Japanese Urban Areas by the Inclusion of a Snowpack Scheme in the SPUC Model. *Journal of the Meteorological Society of Japan*, **96**, 511-534, doi:10.2151/jmsj.2018-053.
- 9\* 川端康弘, 山本哲, 志藤文武, 清野直子, 2018: 観測環境の違いによる気温の鉛直分布と変動の特徴について. *風工学シンポジウム論文集*, **25**, 139-144.
- 10\* TSUGUTI, H., N. SEINO, H. KAWASE, Y. IMADA, T. NAKAEGAWA, and I. TAKAYABU, 2019: Meteorological overview and mesoscale characteristics of the Heavy Rain Event of July 2018 in Japan. *Landslides*, **16**, 363-371.
- 関山 剛 1 Mathieu, A., M. Kajino, I. Korsakissok, R. Périllat, D. Quélo, A. Quérel, O. Saunier, T. T. Sekiyama, Y. Igarashi, D. Didier, 2018: Fukushima Daiichi-derived radionuclides in the atmosphere, transport and deposition in Japan: A review. *Applied Geochemistry*, **91**, 122-139, doi:10.1016/j.apgeochem.2018.01.002.
- 2\* Kajino, M., T. T. Sekiyama, A. Mathieu, I. Korsakissok, R. Périllat, D. Quélo, A. Quérel, O. Saunier, K. Adachi, S. Girard, T. Maki, K. Yumimoto, D. Didier, O. Masson, Y. Igarashi, 2018: Lessons learned from atmospheric modeling studies after the Fukushima nuclear accident: Ensemble simulations, data assimilation, elemental process modeling, and inverse modeling, . *Geochemical Journal*, **52** (2) , 85-101, doi:10.2343/geochemj.2.0503.
- 3\* S. Hayashida, M. Kajino, M. Deushi, T. T. Sekiyama, X. Liu, 2018: Seasonality of the lower tropospheric ozone over China observed by the Ozone Monitoring Instrument. *Atmospheric Environment*, **184**, 244-253, doi:10.1016/j.atmosenv.2018.04.014.

- 4\* Benedetti, A., Reid, J. S. Knippertz, P. Marsham, J. H. Di Giuseppe, F. Rémy, S. Basart, S. Boucher, O. Brooks, I. M. Menut, L. Mona, L. Laj, P. Pappalardo, G. Wiedensohler, A. Baklanov, A. Brooks, M. Colarco, P. R. Cuevas, et al., 2018: Status and future of numerical atmospheric aerosol prediction with a focus on data requirements. *Atmospheric Chemistry and Physics*, **18**, 10615-10643, doi:10.5194/acp-18-10615-2018.
- 5\* Kitayama, K., Y. Morino, M. Takigawa, T. Nakajima, H. Hayami, H. Nagai, H. Terada, K. Saito, T. Shimbori, M. Kajino, T. T. Sekiyama, D. Didier, A. Mathieu, D. Quelo, T. Ohara, H. Tsuruta, Y. Oura, M. Ebihara, Y. Moriguchi, and T. Shibata, 2018: Atmospheric modeling of <sup>137</sup>Cs plumes from the Fukushima Daiichi Nuclear Power Plant - Evaluation of the model intercomparison data of the Science Council of Japan. *Journal of Geophysical Research Atmosphere*, **123**, 7754-7770, doi:10.1029/2017JD028230.
- 6 Y. Inomata, M. Aoyama, T. Tsubono, D. Tsumune, Y. Kumamoto, H. Nagai, T. Yamagata, M. Kajino, Y. T. Tanaka, T. T. Sekiyama, E. Oka, M. Yamada, 2018: Estimate of Fukushima-derived radiocaesium in the North Pacific Ocean in summer 2012. *Journal of Radioanalytical and Nuclear Chemistry*, **318** (3) , 1587-1596.
- 7\* Sekiyama, T. T. and T. Iwasaki, 2018: Mass flux analysis of Cs-137 plumes emitted from the Fukushima Daiichi Nuclear Power Plant. *Tellus B*, doi:10.1080/16000889.2018.1507390. (in press)
- 8\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols., *Journal of the Meteorological Society of Japan*.
- 9\* Kajino, M., Sekiyama, T. T., Igarashi, Y., Katata, G., Sawada, M., Adachi, K., et al., 2019: Deposition and dispersion of radio – cesium released due to the Fukushima nuclear accident: Sensitivity to meteorological models and physical modules. *Journal of Geophysical Research*, **124**, 1823-1845.
- 10\* Igarashi, Y., K. Kita, T. Maki, T. Kinase, N. Hayashi, K. Hosaka, K. Adachi, M. Kajino, M. Ishizuka, T. T. Sekiyama, Y. Zaizen, C. Takenaka, K. Ninomiya, H. Okochi and A. Sorimachi , 2019: Fungal spore involvement in the resuspension of radiocaesium in summer. *Scientific Reports*, **9:1954**, doi:10.1038/s41598-018-37698-x.
- 瀬古 弘 1\* Yokota, S., H. Niino, H. Seko, M. Kunii, and H. Yamauchi, 2018: Important factors for tornadogenesis as revealed by high-resolution ensemble forecasts of the Tsukuba supercell tornado of 6 May 2012 in Japan. *Monthly Weather Review*, **146**, 1109-1132, doi:10.1175/MWR-D-17-0254.1.
- 2\* Pereira Filho, A. J., F. Vemado, K. Saito, H. Seko, J. L. Flores Rojas, H. A. Karam, 2018: ARPS Simulations of Convection during TOMACS. *Journal of the Meteorological Society of Japan*, **96**, 247-263, doi:10.2151/jmsj.2018-030.
- 3\* Oigawa, M., T. Tsuda, H. Seko, Y. Shoji, and E. Realini, 2018: Data assimilation experiment of precipitable water vapor observed by a hyper-dense GNSS receiver network using a nested NHM-LETKF system. *Earth, Planets and*

*Space*, **70**, 70-74, doi:10.1186/s40623-018-0851-3.

- 4 横田祥, 瀬古弘, 國井勝, 山内洋, 2018: LETKF ネストシステムによる稠密観測データの同化実験—2012年5月6日に関東地方で発生した竜巻の事例について—. *気象研究ノート「都市における極端気象の観測・予測・情報伝達」*, **236**, 242-249.
- 5\* Kato, T., Yukihiko Terada, Keiichi Tadokoro, Natsuki Kinugasa, Akira Futamura, Morio Toyoshima, Shin-ichi Yamamoto, Mamoru Ishii, Takuya Tsugawa, Michi Nishioka, Kenichi Takizawa, Yoshinori Shoji, and Hiromu Seko, 2018: Development of GNSS Buoy for a Synthetic Geohazard Monitoring System. *Journal of Disaster Research*, **13**, 460-471, doi:10.20965/jdr.2018.p0460.
- 6 Seko, H., K. Koizumi, T. Yoshihara, A. Senoguchi and T. Koga, 2018: Data assimilation experiments of SSR mode-s downlink data using Meso-NAPEX system of JMA. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling/WMO*, **48**, 1-21.
- 7\* Yokota, S., H. Seko, M. Kunii, H. Yamauchi, and E. Sato, 2018: Improving short-term rainfall forecasts by assimilating weather radar reflectivity using additive ensemble perturbations. *Journal of Geophysical Research Atmosphere*, **123**, 9047-9062, doi:10.1029/2018JD028723.
- 8\* Fukui, S, T. Iwasaki, K. Saito, H. Seko and M. Kunii, 2018: A feasibility study of the high-resolution regional reanalysis over Japan assimilating only conventional observations as an alternative to the dynamical downscaling. *Journal of the Meteorological Society of Japan*, **96**, 565-585, doi:10.2151/jmsj.2018-056.
- 9\* Otsuka, M., H. Seko, K. Shimoji, and K. Yamashita, 2018: Characteristics of Himawari-8 Rapid Scan Atmospheric Motion Vectors Utilized in Mesoscale Data Assimilation . *Journal of the Meteorological Society of Japan*, **96B**, 111-131, doi:10.2151/jmsj.2018-034.
- 10 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 2019: データ同化とアンサンブル予報による竜巻発生過程の解析. *ながれ*, **38-1**. (in press)
- 11\* Maejima, Y., T. Miyoshi, M. Kunii, H. Seko and K. Sato, 2019: Impact of Dense and Frequent Surface Observations on 1-Minute-Update Severe Rainstorm Prediction: A Simulation Study. *Journal of the Meteorological Society of Japan*, **97**, 253-273, doi:10.2151/jmsj.2019-014.
- 12\* Chen, G., H. Iwai, S. Ishii, K. Saito, H. Seko, W. Sha and T. Iwasaki, 2019: Structures of the Sea - Breeze Front in Dual - Doppler Lidar Observation and Coupled Mesoscale - to - LES Modeling. *Journal of Geophysical Research Atmosphere*, doi:10.1029/2018JD029017.
- 13\* 大谷修一, 仲田直樹, 石本歩, 秋枝周子, 風早範彦, 西森靖高, 中村剛, 依岡幸広, 立神達朗, 岩田奉文, 瀬古弘, 横田祥, 2019: 下層インフローに着目した大雨と環境場との関係に関するアンサンブル予報実験による解析 —平成26年8月19~20日に発生した広島県南部の大雨事例—. *天気 (論文・短報)*, **66**, 141-160.
- 14 Otsuka, M., J. Matsumoto, and H. Seko, 2019: Geostationary Satellite Data Assimilation in Mesoscale Forecast Systems: A Review. *Geographical Reports of Tokyo Metropolitan University*, **54**, 1-10.
- 15 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 2019: 竜巻のアンサンブル予報. *気象研究ノート「竜巻を識る」*. (in press)
- 16 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 佐藤英一, 2019: 高解像度アンサンブル予報を用いた竜巻の発生要因の解析. *月刊海洋号外「新野宏教授退職記念号」*. (in

- press)
- 17 瀬古弘, 津田敏隆, 2019: メソスケールLETKFシステムを用いたGNSS掩蔽観測の屈折率データの同化実験. 月刊海洋号外「新野宏教授退職記念号」. (in press)
- 18 瀬古弘, 斉藤和雄, 國井勝, 2019: メソアンサンブルによる竜巻予測の可能性. 気象研究ノート「竜巻を識る」. (in press)
- 高木朗充 1 武尾実, 大湊隆雄, 前野深, 篠原雅尚, 馬場聖至, 渡邊篤志, 市原美恵, 西田究, 金子隆之, 安田敦, 杉岡裕子, 浜野洋三, 多田訓子, 中野俊, 吉本充宏, 高木朗充, 長岡優, 2018: 西之島の地球物理観測と上陸調査. 海洋理工学会誌, **24**, 45-56, doi:10.14928/amstec.24.1\_45.
- 2 高木朗充, 北川隆洋, 2018: 観測船による西之島の火山活動 (2018年5月). 火山噴火予知連絡会会報, **130**, 175-178.
- 3\* 高木朗充, 谷口正実, 太田健治, 上田義浩, 松末伸一, 小窪則夫, 2019: 1950年代から2001年までの気象庁の検知管法による火山ガス成分観測データの調査と解析. 駿震時報 (論文), **82**. (in press)
- 4\* 高木朗充, 2019: 深部圧力源による火山性地殻変動に基づく噴火発生予測の評価. 火山. (in press)
- 高谷祐平 1\* Scaife, A. A. et al., 2018: Tropical rainfall predictions from multiple seasonal forecast systems. *International Journal of Climatology*, doi:10.1002/joc.5855.
- 2 Takaya, Y., 2018: Forecast system design, configuration, complexity. *Sub-seasonal to Seasonal Prediction*, ELSEVIER, 245-259pp, ISBN: 9780128117149.
- 高藪 出 1 Mau, N. D., N. M. Truong, H. Sasaki, and I. Takayabu, 2018: A study of seasonal rainfall in Vietnam at the end of 21st century according to the Non-Hydrostatic Regional Climate Model. . *Vietnam Journal of Science, Technology and Engineering*, **60**, 89-96, doi:10.31276/VJSTE.60(3).89.
- 2\* TSUGUTI, H., N. SEINO, H. KAWASE, Y. IMADA, T. NAKAEGAWA, and I. TAKAYABU, 2019: Meteorological overview and mesoscale characteristics of the Heavy Rain Event of July 2018 in Japan. *Landslides*, **16**, 363-371.
- 田尻拓也 1 山下克也, 當房豊, 荒木健太郎, 佐藤陽祐, 三隅良平, 前田麻人, 岩田拓己, 森樹大, 岩本洋子, 村田浩太郎, 折笠成宏, 田尻拓也, 齋藤泉, 端野典平, 島伸一郎, 武田和弥, 郭朋君, 川合秀明, 山内晃, 藤原智貴, 堀田陽香, 熊谷幸基, 猪又淳之助, 大芦宏彰, 高橋麗, 酒井健人, 2018: 「2017年度エアロゾル・雲・降水の相互作用に関する研究集会」報告. 天気, **65**, 521-528.
- 田中泰宙 1\* Okamoto, K., T. Ishibashi, S. Ishii, P. Baron, K. Gamo, T. Y. Tanaka, K. Yamashita, and T. Kubota, 2018: Feasibility study for future space-borne coherent Doppler wind lidar. part 3: Impact assessment using sensitivity observing system simulation experiments.. *Journal of the Meteorological Society of Japan*, **96**, 179-199, doi.org/10.2151/jmsj.2018-024.
- 2\* Yumimoto, K., T. Y. Tanaka, M. Yoshida, M. Kikuchi, T. M. Nagao, H. Murakami, and T. Maki, 2018: Assimilation and Forecasting Experiment for Heavy Siberian Wildfire Smoke in May 2016 with Himawari-8 Aerosol Optical Thickness. *Journal of the Meteorological Society of Japan*, **96B**, 133-149, doi:/10.2151/jmsj.2018-035.
- 3\* C. Orbe et al., 2018: Large-scale tropospheric transport in the Chemistry–Climate Model Initiative (CCMI) simulations. *Atmospheric Chemistry and Physics*, **18**, 7217-7235, doi:10.5194/acp-18-7217-2018.

- 4\* Benedetti, A., Reid, J. S. Knippertz, P. Marsham, J. H. Di Giuseppe, F. Rémy, S. Basart, S. Boucher, O. Brooks, I. M. Menut, L. Mona, L. Laj, P. Pappalardo, G. Wiedensohler, A. Baklanov, A. Brooks, M. Colarco, P. R. Cuevas, et al., 2018: Status and future of numerical atmospheric aerosol prediction with a focus on data requirements. *Atmospheric Chemistry and Physics*, **18**, 10615-10643, doi:10.5194/acp-18-10615-2018.
- 5 Y. Inomata, M. Aoyama, T. Tsubono, D. Tsumune, Y. Kumamoto, H. Nagai, T. Yamagata, M. Kajino, Y. T. Tanaka, T. T. Sekiyama, E. Oka, M. Yamada, 2018: Estimate of Fukushima-derived radiocaesium in the North Pacific Ocean in summer 2012. *Journal of Radioanalytical and Nuclear Chemistry*, **318 (3)**, 1587-1596.
- 6\* 川端康弘, 清野直子, 田中泰宙, 青柳暁典, 2018: 都市における冬季夜間の気温低下抑制の要因に関する感度実験. *日本ヒートアイランド学会論文集*, **13**, 7-15.
- 7\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols,. *Journal of the Meteorological Society of Japan*.
- 8\* Xian, P., J. S. Reid, E. J. Hyer, C. R. Sampson, J. I. Rubin, M. Ades, N. Asencio, S. Basart, A. Benedetti, P. Bhattacharjee, M. E. Brooks, P. R. Colarco, A. D. Silva, T. F. Eck, J. Guth, O. Jorba, et al. , 2019: Current State of the global operational aerosol multi - model ensemble: an update from the International Cooperative for Aerosol Prediction (ICAP). *Quarterly Journal of the Royal Meteorological Society*. (in press)
- 9\* Keiya Yumimoto, Mizuo Kajino, Taichu Y. Tanaka & Itsushi Uno, 2019: Dust Vortex in the Taklimakan Desert by Himawari-8 High Frequency and Resolution Observation. *Scientific Reports*, **9,1209**.
- 谷川朋範 1\* Matoba, S., M. Niwano, T. Tanikawa, Y. Iizuka, T. Yamasaki, Y. Kurosaki, T. Aoki, A. Hashimoto, M. Hosaka, and S. Sugiyama, 2018: Field activities at the SIGMA-A site, northwestern Greenland Ice Sheet. *Bulletin of Glaciological Research*, **36**, 15-22, doi:10.5331/bgr.18R01.
- 2\* Snorre, S., Y. Fan, N. Chen, W. Li, T. Tanikawa, Z. Lin, X. Liu, S. Burton, A. Omar, J. J. Stamnes, B. Cairns, and K. Stamnes, 2018: Advantages of Measuring the Q Stokes Parameter in Addition to the Total Radiance I in the Detection of Absorbing Aerosols. *Frontiers in Earth Science*, **6**, doi:10.3389/feart.2018.00034. (in press)
- 3\* 黒崎 豊, 的場澄人, 飯塚芳徳, 庭野匡思, 谷川朋範, 青木輝夫, 2018: バフィン湾周辺の環境がグリーンランド北西部の降雪中の d-excess と化学成分に与える影響. *雪氷*, **80**, 515-529.
- 4 谷川朋範, 余郷友祐, 井岡佑介, 深堀正志, 保坂征宏, 青木輝夫, 浜田啓次, 赤坂有史, 2018: 積雪・海氷. *気象研究ノート第 238 号「静止気象衛星ひまわり 8号・9号 とその利用」*.
- 5\* Chen, N., W. Li, C. Gatebe, T. Tanikawa, M. Hori, R. Shimada, T. Aoki, and K. Stamnes, 2018: New neural network cloud mask algorithm based on radiative

- transfer simulations. *Remote Sensing of Environment*, **219**, 62-71, doi:10.1016/j.rse.2018.09.029.
- 溜瀧功史 1\* Kodera, Y., Y. Yamada, K. Hirano, K. Tamaribuchi, S. Adachi, N. Hayashimoto, M. Morimoto, M. Nakamura, and M. Hoshiba, 2018: The Propagation of Local Undamped Motion (PLUM) method: a simple and robust seismic wavefield estimation approach for earthquake early warning. *Bulletin of the Seismological Society of America*, **108(2)**, 983-1003, doi:10.1785/0120170085.
- 2\* Tamaribuchi, K., Y. Yagi, B. Enescu, and S. Hirano, 2018: Characteristics of foreshock activity inferred from the JMA earthquake catalog. *Earth, Planets and Space*, **70**, 90, doi:10.1186/s40623-018-0866-9.
- 3\* Tamaribuchi, K., 2018: Evaluation of automatic hypocenter determination in the JMA unified catalog. *Earth, Planets and Space*, **70**, 141, doi:10.1186/s40623-018-0915-4.
- 4 廣田伸之, 溜瀧功史, 2018: 即時的な解説資料における自動震源の活用. 平成 28 年 (2016 年) 熊本地震調査報告, **135**, 67-72.
- 5\* K.Z. Nanjo, K. Miyaoka, K. Tamaribuchi, A. Kobayashi, A. Yoshida, 2018: Related spatio-temporal changes in hypocenters and the b value in the 2017 Kagoshima Bay swarm activity indicating a rise of hot fluids. *Tectonophysics*, **749**, 35-45, doi:10.1016/j.tecto.2018.10.023.
- 津口裕茂 1 Wada, A., H. Tsuguti, and H. Yamada, 2018: Formation and propagation of shield-like precipitation pattern in the Eastern China Sea remotely enhanced by Typhoon Nepartak (2016) simulated by an atmosphere-wave-ocean coupled model. *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 5-13.
- 2 津口裕茂, 2018: 平成 30 年 7 月豪雨について (速報). 第 17 回都市水害に関するシンポジウム講演論文集.
- 3 鵜沼昂, 吉住蓉子, 春日悟, 下瀬健一, 加藤亮平, 栃本英伍, 渡邊俊一, 末木健太, 津口裕茂, 横田祥, 2018: 第 5 回メソ気象セミナー開催報告. *天気*, **65**, 757-763.
- 4\* TSUGUTI, H., N. SEINO, H. KAWASE, Y. IMADA, T. NAKAEGAWA, and I. TAKAYABU, 2019: Meteorological overview and mesoscale characteristics of the Heavy Rain Event of July 2018 in Japan. *Landslides*, **16**, 363-371.
- 辻野博之 1\* Tsujino, H., S. Urakawa, H. Nakano, Y. Harada, C. Kobayashi, S. Kobayashi, 他 25 名, 2018: JRA-55 based surface dataset for driving ocean-sea-ice models (JRA55-do). *Ocean Modelling*, **130**, 79-139, doi:10.1016/j.ocemod.2018.07.002.
- 2\* Nakano, H., H. Tsujino, K. Sakamoto, S. Urakawa, T. Toyoda, and G. Yamanaka, 2018: Identification of the fronts from the Kuroshio Extension to the Subarctic Current using absolute dynamic topographies in satellite altimetry products. *Journal of Oceanography*, **74**, 393-420, doi:10.1007/s10872-018-0470-4.
- 3\* Suzuki, T., D. Yamazaki, H. Tsujino, Y. Komuro, H. Nakano, S. Urakawa, 2018: A dataset of continental river discharge based on JRA-55 for use in a global ocean circulation model. *Journal of Oceanography*, **74**, 421-429, doi:10.1007/s10872-017-0458-5.
- 4\* 坂本圭, 辻野博之, 中野英之, 浦川昇吾, 山中吾郎, 2018: Git と Redmine を用いた気象研究所共用海洋モデル「MRI.COM」の開発管理. *海の研究*, **27**, 175-188.
- 5\* Taboada, F. G., C. A. Stock, S. M. Griffies, J. Dunne, J. G. John, R. J. Small, H. Tsujino, 2018: Surface winds from atmospheric reanalysis lead to contrasting oceanic forcing and coastal upwelling patterns. *Ocean Modelling*, **133**, 79-111,

- doi:10.1016/j.ocemod.2018.11.003.
- 6 豊田隆寛, 岩本勉之, 浦川昇吾, 辻野博之, 中野英之, 坂本圭, 山中吾郎, 小室芳樹, 西野茂人, 浮田甚郎, 2019: 衛星観測の薄氷データを用いた海洋・海氷シミュレーションの改善. *月刊海洋*, **51**, 121-127.
- 7 Fox-Kemper, B., A. Adcroft, C. W. Boening, C. P. Chassignet, E. Curchitser, G. Danabasoglu, C. Eden, M. H. England, R. Gerdes, R. J. Greatbatch, S. M. Griffies, R. W. Hallberg, E. Hanert, P. Heimbach, H. Tsujino, 他 13 名, 2019: Challenges and Prospects in Ocean Circulation Models. *Frontiers in Marine Science*, **6**, 65, doi:10.3389/fmars.2019.00065.
- 8\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 堤之 智 1\* Tsutsumi, Y., 2018: Characterization of ozone in the middle troposphere over Japan from 6 years of observations at the summit of Mount Fuji (3776 m). *気象研究所研究報告*, **67**, 45-56, doi:10.2467/mripapers.67.45.
- 2\* Tsutsumi, Y., 2018: Multidecadal Trends in Thickness Temperature, Surface Temperature, and 700-hPa Temperature in the Mount Fuji Region, Japan, 1965–2016. *Journal of Climate*, **31**, 8305-8312, doi:10.1175/JCLI-D-18-0222.1.
- 坪井一寛 1\* Ishijima, K., M. Takigawa, Y. Yamashita, H. Yashiro, C. Kodama, M. Satoh, K. Tsuboi, H. Matsueda, Y. Niwa, and S. Hirao, 2018: Analysis of High Radon-222 Concentration Events Using Multi-Horizontal-Resolution NICAM Simulations. *SOLA*, **14**, 111-115, doi:10.2151/sola.2018-019.
- 2 高辻慎也, 川崎照夫, 中村雅道, 齊藤和幸, 滝沢厚詩, 出原幸志郎, 細川周一, 松枝秀和, 坪井一寛, 2018: 気象庁メタン標準ガス校正装置の更新と新旧データの比較. *測候時報*, **85**, 75-90.
- 3\* Matsueda, H., K. Tsuboi, S. Takatsuji, T. Kawasaki, M. Nakamura, K. Saito, A. Takizawa, K. Dehara, and S. Hosokawa, 2018: Evaluation of a new methane calibration system at JMA for WCC Round Robin experiments. *気象研究所研究報告*, **67**, 57-67, doi:10.2467/mripaper.67.57.
- 出牛 真 1\* Dietmüller, S., Eichinger, R., Garny, H., Birner, T., Boenisch, H., Pitari, G., Mancini, E., Visionsi, D., Stenke, A., Revell, L., Rozanov, E., Plummer, D. A., Scinocca, J., Jöckel, P., Oman, L., Deushi, M., Kiyotaka, S., Kinnison, D. E., Garcia, R., Morge, 2018: Quantifying the effect of mixing on the mean age of air in CCMVal-2 and CCMI-1 models. *Atmospheric Chemistry and Physics*, **18**, 6699-6720, doi:10.5194/acp-18-6699-2018.
- 2\* C. Orbe et al., 2018: Large-scale tropospheric transport in the Chemistry–Climate Model Initiative (CCMI) simulations. *Atmospheric Chemistry and Physics*, **18**, 7217-7235, doi:10.5194/acp-18-7217-2018.
- 3\* S. Hayashida, M. Kajino, M. Deushi, T. T. Sekiyama, X. Liu, 2018: Seasonality of the lower tropospheric ozone over China observed by the Ozone Monitoring Instrument. *Atmospheric Environment*, **184**, 244-253, doi:10.1016/j.atmosenv.2018.04.014.
- 4\* P. A. Wales et al., 2018: Stratospheric injection of brominated very short-lived substances: Aircraft observations in the Western Pacific and representation in

- global models. *Journal of Geophysical Research Atmosphere*, **123**, 5690-5719, doi:10.1029/2017JD027978.
- 5\* Son et al., 2018: Tropospheric jet response to Antarctic ozone depletion: An update with Chemistry- Climate Model Initiative (CCMI) models. *Environmental Research Letters*, **13**, 054024, doi:10.1088/1748-9326/aabf21.
- 6\* S. S. Dhomse et al., 2018: Estimates of ozone return dates from Chemistry-Climate Model Initiative simulations. *Atmospheric Chemistry and Physics*, **18**, 8409-8438, doi:10.5194/acp-18-8409-2018.
- 7\* A. C. Maycock et al., 2018: Revisiting the mystery of recent stratospheric temperature trends. *Geophysical Research Letters*, **45**, 9919-9933, doi:10.1029/2018GL078035.
- 8\* S. Noda, K. Kodera, Y. Adachi, M. Deushi, A. Kitoh, R. Mizuta, S. Murakami, K. Yoshida, and S. Yoden, 2018: Mitigation of global cooling by stratospheric chemistry feedbacks in a simulation of the Last Glacial Maximum. *Journal of Geophysical Research Atmosphere*, **123**, 9378-9390, doi:10.1029/2017JD028017.
- 9\* B. Ayarzagüena et al, 2018: No Robust Evidence of Future Changes in Major Stratospheric Sudden Warmings: A Multi-model Assessment from CCMI. *Atmospheric Chemistry and Physics*, **18**, 11277-11287, doi:10.5194/acp-18-11277-2018.
- 10\* Maycock, A. C., Matthes, K., Tegtmeier, S., Schmidt, H., Thiéblemont, R., Hood, L., Bekki, S., Deushi, M., Jöckel, P., Kirner, O., Kunze, M., Marchand, M., Marsh, D. R., Michou, M., Revell, L. E., Rozanov, E., Stenke, A., Yamashita, Y., and Yoshida, K., 2018: The representation of solar cycle signals in stratospheric ozone. Part 2: Analysis of global models. *Atmospheric Chemistry and Physics*, **18**, 11323-11343, doi:10.5194/acp-18-11323-2018.
- 11\* Phalitnonkiat, P., Hess, P. G. M., Grigoriu, M. D., Samorodnitsky, G., Sun, W., Beaudry, E., Tilmes, S., Deushi, M., Josse, B., Plummer, D., and Sudo, K., 2018: Extremal dependence between temperature and ozone over the continental US. *Atmospheric Chemistry and Physics*, **18**, 11927-11948, doi:10.5194/acp-18-11927-2018.
- 12\* Sahu LK, Tripathi N, Sheel V, Kajino M, Deushi M, Yadav R, Nedelec P, 2018: Impact of the tropical cyclone Nilam on the vertical distribution of carbon monoxide over Chennai on the Indian peninsula. *Quarterly Journal of the Royal Meteorological Society*, **144**, 1091-1105, doi:10.1002/qj.3276.
- 13\* L. E. Revell et al., 2018: Tropospheric ozone in CCMI models and Gaussian process emulation to understand biases in the SOCOLv3 chemistry-climate model. *Atmospheric Chemistry and Physics*, **18**, 16155-16172, doi:10.5194/acp-18-16155-2018.
- 14\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols,. *Journal of the Meteorological Society of Japan*.

- 15\* Roland, E. et al., 2019: The influence of mixing for the changes of stratospheric transport across the 21st century. *Atmospheric Chemistry and Physics*, **19**, 921-940, doi:10.5194/acp-19-921-2019.
- 16\* Z. E. Gillett, J. M. Arblaster, A. J. Dittus, M. Deushi, P. Jöckel, D. E. Kinnison, O. Morgenstern, D. A. Plummer, L. E. Revell, E. Rozanov, R. Schofield, A. Stenke, K. A. Stone, and S. Tilmes, 2019: Evaluating the relationship between interannual variations in the Antarctic Ozone Hole and Southern Hemisphere surface climate in chemistry-climate models. *Journal of Climate*. (in press)
- 17 Bais, A. F. and Bernhard, G. and McKenzie, R. L. and Aucamp, P. J. and Young, P. J. and Ilyas, M. and Jöckel, P. and Deushi, M., 2019: Ozone–climate interactions and effects on solar ultraviolet radiation. *Photochemical & Photobiological Sciences*, doi:10.1039/C8PP90059K.
- 18\* Chang, K.-L., O. R. Cooper, J. J. West, M. L. Serre, M. G. Schultz, M. Lin, V. Marécal, B. Josse, M. Deushi, K. Sudo, J. Liu, and C. A. Keller, 2019: A new method (M3Fusion-v1) for combining observations and multiple model output for an improved estimate of the global surface ozone distribution. *Geoscientific Model Development*, **12**, 955-978, doi:10.5194/gmd-12-955-2019.
- 徳本哲男 1 佐藤英一, 新堀敏基, 福井敬一, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測された2018年1月23日草津白根山噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **129**, 78-82.
- 2 佐藤英一, 福井敬一, 新堀敏基, 石井憲介, 徳本哲男, 2018: 気象レーダーで観測した2018年3月から5月にかけての霧島山(新燃岳)噴火に伴う噴煙エコー. *火山噴火予知連絡会会報*, **130**, 292-298.
- 豊田隆寛 1\* Nakano, H., H. Tsujino, K. Sakamoto, S. Urakawa, T. Toyoda, and G. Yamanaka, 2018: Identification of the fronts from the Kuroshio Extension to the Subarctic Current using absolute dynamic topographies in satellite altimetry products. *Journal of Oceanography*, **74**, 393-420, doi:10.1007/s10872-018-0470-4.
- 2 豊田隆寛, 岩本勉之, 浦川昇吾, 辻野博之, 中野英之, 坂本圭, 山中吾郎, 小室芳樹, 西野茂人, 浮田甚郎, 2019: 衛星観測の薄氷データを用いた海洋・海水シミュレーションの改善. *月刊海洋*, **51**, 121-127.
- 3\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean–sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 直江寛明 1\* Yamashita, Y., H. Naoe, M. Inoue, and M. Takahashi, 2018: Response of the Southern Hemisphere atmosphere to the stratospheric equatorial quasi-biennial oscillation (QBO) from winter to early summer. *Journal of the Meteorological Society of Japan*, **96**, 587-600.
- 永井智広 1\* Sakai, T., T. Nagai, T. Izumi, S. Yoshida, and Y. Shoji, 2019: Automated compact mobile Raman lidar for water vapor measurement: instrument description and validation by comparison with radiosonde, GNSS, and high-resolution objective analysis. *Atmospheric Measurement Techniques*, **12**, 313-326, doi:10.5194/amt-12-313-2019.
- 仲江川敏之 1\* TSUGUTI, H., N. SEINO, H. KAWASE, Y. IMADA, T. NAKAEGAWA, and I. TAKAYABU, 2019: Meteorological overview and mesoscale characteristics of

the Heavy Rain Event of July 2018 in Japan. *Landslides*, **16**, 363-371.

- 長岡 優 1 武尾実, 大湊隆雄, 前野深, 篠原雅尚, 馬場聖至, 渡邊篤志, 市原美恵, 西田究, 金子隆之, 安田敦, 杉岡裕子, 浜野洋三, 多田訓子, 中野俊, 吉本充宏, 高木朗充, 長岡優, 2018: 西之島の地球物理観測と上陸調査. *海洋理工学会誌*, **24**, 45-56, doi:10.14928/amstec.24.1\_45.
- 中川雅之 1 Wada, A., H. Yoshimura, and M. Nakagawa, 2018: Sensitivity of the prediction of Typhoon Lionrock (2016) to the parameter in the cloud scheme using the 7-km mesh nonhydrostatic global spectral atmospheric Double Fourier Series Model (DFSModel). *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 4-11.
- 2 Wada, A., H. Yoshimura, and M. Nakagawa, 2018: Sensitivity of the prediction of Typhoon Lionrock (2016) to the surface boundary scheme using the 7-km mesh nonhydrostatic global spectral atmospheric Double Fourier Series Model (DFSModel). *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 4-13.
- 3 H. Yonehara, R. Sekiguchi, T. Kanehama, K. Saitou, T. Kinami, A. Shimokobe, D. Hotta, R. Nagasawa, H. Sato, M. Ujiie, T. Kadowaki, S. Yabu, K. Yamada, M. Nakagawa, T. Tokuhira, 2018: Upgrade of JMA's s operational global NWP system. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling/WMO*, **48**, 6-15.
- 長澤亮二 1 H. Yonehara, R. Sekiguchi, T. Kanehama, K. Saitou, T. Kinami, A. Shimokobe, D. Hotta, R. Nagasawa, H. Sato, M. Ujiie, T. Kadowaki, S. Yabu, K. Yamada, M. Nakagawa, T. Tokuhira, 2018: Upgrade of JMA's s operational global NWP system. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling/WMO*, **48**, 6-15.
- 中田健嗣 1\* Nakata, K., Y. Hayashi, H. Tsushima, K. Fujita, Y. Yoshida, and A. Katsumata, 2019: Performance of uniform and heterogeneous slip distributions for the modeling of the November 2016 off Fukushima earthquake and tsunami, Japan. *Earth, Planets and Space*, **71**, 30, doi:10.1186/s40623-019-1010-1.
- 2\* Nakata K., A. Kobayashi, A. Katsumata, F. Hirose, T. Nishimiya, K. Kimura, H. Tsushima, K. Maeda, H. Baba, N. Hanamura, C. Yamada, and M. Kanezashi, 2019: Double seismic zone and seismicity in the mantle wedge beneath the Ogasawara Islands identified by an ocean bottom seismometer observation. *Earth, Planets and Space*, **71**, 29, doi:10.1186/s40623-019-1012-z.
- 中野英之 1\* Hoshiya, Y., T. Hirata, M. Shigemitsu, H. Nakano, T. Hashioka, Y. Masuda, and Y. Yamanaka, 2018: Biological data assimilation for parameter estimation of a phytoplankton functional type model for the western North Pacific. *Ocean Science*, **14**, 371, doi:10.5194/os-14-371-2018.
- 2\* Nakano, H., H. Tsujino, K. Sakamoto, S. Urakawa, T. Toyoda, and G. Yamanaka, 2018: Identification of the fronts from the Kuroshio Extension to the Subarctic Current using absolute dynamic topographies in satellite altimetry products. *Journal of Oceanography*, **74**, 393-420, doi:10.1007/s10872-018-0470-4.
- 3\* Tsujino, H., S. Urakawa, H. Nakano, Y. Harada, C. Kobayashi, S. Kobayashi, 他 25 名, 2018: JRA-55 based surface dataset for driving ocean-sea-ice models (JRA55-do). *Ocean Modelling*, **130**, 79-139, doi:10.1016/j.ocemod.2018.07.002.
- 4\* Suzuki, T., D. Yamazaki, H. Tsujino, Y. Komuro, H. Nakano, S. Urakawa, 2018: A dataset of continental river discharge based on JRA-55 for use in a global ocean circulation model. *Journal of Oceanography*, **74**, 421-429,

doi:10.1007/s10872-017-0458-5.

- 5\* 坂本圭, 辻野博之, 中野英之, 浦川昇吾, 山中吾郎, 2018: Git と Redmine を用いた気象研究所共用海洋モデル「MRI.COM」の開発管理. *海の研究*, **27**, 175-188.
- 6 豊田隆寛, 岩本勉之, 浦川昇吾, 辻野博之, 中野英之, 坂本圭, 山中吾郎, 小室芳樹, 西野茂人, 浮田甚郎, 2019: 衛星観測の薄氷データを用いた海洋・海水シミュレーションの改善. *月刊海洋*, **51**, 121-127.
- 7\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 8\* Ishizaki, H., T. Nakano, H. Nakano, and G. Yamanaka, 2019: Interdecadal variability of the North Equatorial Undercurrent (NEUC) found in the longterm hydrographic observation along 137 °E. *Journal of Oceanography*, doi:10.1007/s10872-019-00509-6. (in press)
- 南雲信宏 1 南雲信宏, 2018: 2013年7月23日 孤立積乱雲発生に先立つ海風前線と非降水エコーの関係. *気象研究ノート「都市における極端気象の観測・予測・情報伝達」*, **236**, 97-107.
- 2\* Nagumo, N., A. Adachi, and H. Yamauchi, 2019: Geometrical properties of hydrometeors during the refreezing process and their effects on dual-polarized radar signals. *Monthly Weather Review*, **147**, doi:10.1175/MWR-D-18-0278.1. (in press)
- 西宮隆仁 1\* Nakata K., A. Kobayashi, A. Katsumata, F. Hirose, T. Nishimiya, K. Kimura, H. Tsushima, K. Maeda, H. Baba, N. Hanamura, C. Yamada, and M. Kaneshashi, 2019: Double seismic zone and seismicity in the mantle wedge beneath the Ogasawara Islands identified by an ocean bottom seismometer observation. *Earth, Planets and Space*, **71**, 29, doi:10.1186/s40623-019-1012-z.
- 庭野匡思 1\* Matoba, S., M. Niwano, T. Tanikawa, Y. Iizuka, T. Yamasaki, Y. Kurosaki, T. Aoki, A. Hashimoto, M. Hosaka, and S. Sugiyama, 2018: Field activities at the SIGMA-A site, northwestern Greenland Ice Sheet. *Bulletin of Glaciological Research*, **36**, 15-22, doi:10.5331/bgr.18R01.
- 2\* Onuma, Y., N. Takeuchi, S. Tanaka, N. Nagatsuka, M. Niwano, and T. Aoki, 2018: Observations and modelling of algal growth on a snowpack in north-western Greenland. *The Cryosphere*, **12**, 2147-2158, doi:10.5194/tc-12-2147-2018.
- 3 Hashimoto, A., M. Niwano, S. Yamaguchi, T. Yamasaki and T. Aoki, 2018: Numerical simulation of lee-side downslope winds near Siorapaluk in northwest Greenland. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling*, **48**, 5-05.
- 4\* Takeuchi, N., R. Sakaki, J. Uetake, N. Nagatsuka, R. Shimada, M. Niwano, T. Aoki, 2018: Temporal variations of cryoconite holes and cryoconite coverage on the ablation ice surface of Qaanaaq Glacier in northwest Greenland. *Annals of Glaciology*, doi:10.1017/aog.2018.19.
- 5 庭野匡思, 山崎哲秀, 山口 悟, 2018: 北極犬橇観測行 2018. *雪氷*, **80**, 588-592.
- 6\* 黒崎 豊, 的場澄人, 飯塚芳徳, 庭野匡思, 谷川朋範, 青木輝夫, 2018: バフィン湾周辺の環境がグリーンランド北西部の降雪中の d-excess と化学成分に与える影響. *雪氷*, **80**, 515-529.

- 7\* Krinner, G. et al. , 2018: ESM-SnowMIP: assessing snow models and quantifying snow-related climate feedbacks. *Geoscientific Model Development*, **11**, 5027-5049, doi:10.5194/gmd-11-5027-2018.
- 8 Yamaguchi, S., S. Matoba, M. Niwano, T. Aoki, and K. Kosugi, 2018: Database of long-term meteorological and snow-pit observations in Japan. *International Snow Science Workshop Proceedings 2018*, 582-585.
- 野坂真也 1\* Kawase, H., T. Sasai, T. Yamazaki, R. Ito, K. Dairaku, S. Sugimoto, H. Sasaki, A. Murata, M. Nosaka, 2018: Characteristics of synoptic conditions for heavy snowfall in western to northeastern Japan analyzed by the 5-km regional climate ensemble experiments. *Journal of the Meteorological Society of Japan*, **96**, 161-178, doi:10.2151/jmsj.2018-022.
- 2 川瀬宏明, 飯田肇, 青木一真, 島田互, 野坂真也, 村田昭彦, 佐々木秀孝, 2019: 立山黒部アルペンルートにおける積雪観測と異なる水平解像度の非静力学地域気候モデル(NHRCM)を用いた積雪再現実験の比較. *地学雑誌*. (in press)
- 橋本明弘 1 中井専人, 吉田聡, 荒木健太郎, 出世ゆかり, 岩波越, 鈴木真一, 橋本明弘, 本吉弘岐, 2018: 降雪状況の面的解析. 平成 29 年度科学研究費補助金 (特別研究促進費) 「2017 年 3 月 27 日に栃木県那須町で発生した雪崩災害に関する調査研究」研究成果報告書, 45-46.
- 2 橋本明弘, 本吉弘岐, 山口悟, 中井専人, 2018: 降雪による弱層形成に関する数値気象モデルを用いた再現実験. 平成 29 年度科学研究費補助金 (特別研究促進費) 「2017 年 3 月 27 日に栃木県那須町で発生した雪崩災害に関する調査研究」研究成果報告書, 64-69.
- 3 Hashimoto, A., M. Niwano, S. Yamaguchi, T. Yamasaki and T. Aoki, 2018: Numerical simulation of lee-side downslope winds near Siorapaluk in northwest Greenland. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling*, **48**, 5-05.
- 4 森健彦, 篠原英一郎, 菅井明, 満永大輔, 橋本明弘, 山本圭吾, 2018: 二酸化硫黄放出率の自動計測化へ向けた実証実験 —火山ガス拡散モデルからの二酸化硫黄放出率推定の試み—. *京都大学防災研究所年報*, **61-B**. (in press)
- 5 橋本明弘, 本吉弘岐, 三隅良平, 折笠成宏, 2018: 数値気象モデルによる降雪粒子予測の高度化. *北海道の雪氷*, **37**, 63-66.
- 6 Yamaguchi, S., M. Ishizaka, H. Motoyoshi, S. Nakai, V. Vincent, T. Aoki, K. Yamashita, A. Hashimoto, A. Hachikubo, 2018: Measurement of specific surface area of falling snow. *International Snow Science Workshop Proceedings 2018*.
- 7 Hirashima, H., S. Yamaguchi, K. Nakamura, A. Hashimoto, 2018: Approaches of avalanche predictions resulting from non-rimed falling snow crystals using the SNOWPACK model. *International Snow Science Workshop Proceedings 2018*.
- 8\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols,. *Journal of the Meteorological Society of Japan*.
- 林 修吾 1\* Yoshida, S., E. Yoshikawa, T. Adachi, K. Kusunoki, S. Hayashi, and H. Inoue, 2019:

- Three dimensional radio images of winter lightning in Japan and characteristics of associated charge structure. *IEEE Transactions on Electrical and Electronic Engineering*, **14**, 175-184, doi:10.1002/tee.22795.
- 原田やよい 1 古林慎哉, 原田昌, 小林ちあき, 原田やよい, 大島和裕, 中村尚, 福井真, 藤原正智, 山崎哲, 芳村圭, 2018: 第5回再解析国際会議報告. *天気*, **65**, 431-439.
- 2\* Tsujino, H., S. Urakawa, H. Nakano, Y. Harada, C. Kobayashi, S. Kobayashi, 他 25名, 2018: JRA-55 based surface dataset for driving ocean-sea-ice models (JRA55-do). *Ocean Modelling*, **130**, 79-139, doi:10.1016/j.ocemod.2018.07.002.
- 広瀬成章 1\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 弘瀬冬樹 1\* Nakata K., A. Kobayashi, A. Katsumata, F. Hirose, T. Nishimiya, K. Kimura, H. Tsushima, K. Maeda, H. Baba, N. Hanamura, C. Yamada, and M. Kanezashi, 2019: Double seismic zone and seismicity in the mantle wedge beneath the Ogasawara Islands identified by an ocean bottom seismometer observation. *Earth, Planets and Space*, **71**, 29, doi:10.1186/s40623-019-1012-z.
- 藤井陽介 1 川畑拓矢, 上野玄太, 中野慎也, 藤井陽介, 三好建正, 小守信正, 増田周平, 茂木耕作, 中村和幸, 杉本憲彦, 前島康光, Le Duc, 小槻峻司, 須藤明人, 杉浦望実, 釜塚弘隆, 2018: 第8回データ同化ワークショップの報告. *天気*, **65**, 330-333.
- 2\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 藤田健一 1\* Nakata, K., Y. Hayashi, H. Tsushima, K. Fujita, Y. Yoshida, and A. Katsumata, 2019: Performance of uniform and heterogeneous slip distributions for the modeling of the November 2016 off Fukushima earthquake and tsunami, Japan. *Earth, Planets and Space*, **71**, 30, doi:10.1186/s40623-019-1010-1.
- 保坂征宏 1\* Matoba, S., M. Niwano, T. Tanikawa, Y. Iizuka, T. Yamasaki, Y. Kurosaki, T. Aoki, A. Hashimoto, M. Hosaka, and S. Sugiyama, 2018: Field activities at the SIGMA-A site, northwestern Greenland Ice Sheet. *Bulletin of Glaciological Research*, **36**, 15-22, doi:10.5331/bgr.18R01.
- 2 谷川朋範, 余郷友祐, 井岡佑介, 深堀正志, 保坂征宏, 青木輝夫, 浜田啓次, 赤坂有史, 2018: 積雪・海氷. *気象研究ノート*第238号「静止気象衛星ひまわり8号・9号とその利用」.
- 干場充之 1\* Kodera, Y., Y. Yamada, K. Hirano, K. Tamaribuchi, S. Adachi, N. Hayashimoto, M. Morimoto, M. Nakamura, and M. Hoshihara, 2018: The Propagation of Local Undamped Motion (PLUM) method: a simple and robust seismic wavefield estimation approach for earthquake early warning. *Bulletin of the Seismological Society of America*, **108(2)**, 983-1003, doi:10.1785/0120170085.
- 2\* Ogiso, M., M. Hoshihara, A. Shito, and S. Matsumoto, 2018: Numerical Shake Prediction for Earthquake Early Warning Incorporating Heterogeneous Attenuation Structure: The Case of the 2016 Kumamoto Earthquake. *Bulletin*

- of the Seismological Society of America*, **108**, 3457-3468, doi:10.1785/0120180063.
- 3 干場充之, 2018: シリーズ「新・強震動地震学基礎講座」(第21回)地震動即時予測. *地震2 ニュースレター部*, **71**, NL-3-19.
- 4 干場充之, 2019: 揺れの数値予報: 揺れから揺れを予測する次世代の地震動即時警報. *なるふる (日本地震学会広報誌)*, **116**, 6-7.
- 堀田大介 1\* Hotta, D and M. Ujiie, 2018: A nestable, multigrid-friendly grid on a sphere for global spectral models based on Clenshaw-Curtis quadrature. *Quarterly Journal of the Royal Meteorological Society*, **144**, 1382-1397, doi:10.1002/qj.3282.
- 2 H.Yamaguchi, D.Hotta, T.Kanehama, K.Ochi, Y.Ota, R.Sekiguchi, A.Shimpo, T.Yoshida, 2018: Introduction to JMA's new Global Ensemble Prediction System. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling/WMO*, **48**, 6-13.
- 3 H. Yonehara, R. Sekiguchi, T. Kanehama, K. Saitou, T. Kinami, A. Shimokobe, D. Hotta, R.Nagasawa, H. Sato, M. Ujiie, T. Kadowaki, S. Yabu, K. Yamada, M. Nakagawa, T. Tokuhira, 2018: Upgrade of JMA's s operational global NWP system. *CAS/JSC WGNE Research Activities in Atmospheric and Oceanic Modelling/WMO*, **48**, 6-15.
- 4\* Hotta, D., and Y. Ota, 2019: Statistical generation of SST perturbations with spatio-temporally coherent growing patterns. *Quarterly Journal of the Royal Meteorological Society*, doi:10.1002/qj.3518. (in press)
- 眞木貴史 1\* Kajino, M., T. T. Sekiyama, A. Mathieu, I. Korsakissok, R. Périllat, D. Quélo, A. Quérel, O. Saunier, K. Adachi, S. Girard, T. Maki, K. Yumimoto, D. Didier, O. Masson, Y. Igarashi,., 2018: Lessons learned from atmospheric modeling studies after the Fukushima nuclear accident: Ensemble simulations, data assimilation, elemental process modeling, and inverse modeling, . *Geochemical Journal*, **52 (2)**, 85-101, doi:10.2343/geochemj.2.0503.
- 2\* Yumimoto, K., T. Y. Tanaka, M.Yoshida, M. Kikuchi, T. M. Nagao, H. Murakami, and T. Maki, 2018: Assimilation and Forecasting Experiment for Heavy Siberian Wildfire Smoke in May 2016 with Himawari-8 Aerosol Optical Thickness. *Journal of the Meteorological Society of Japan*, **96B**, 133-149, doi:/10.2151/jmsj.2018-035.
- 3\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology – chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols,. *Journal of the Meteorological Society of Japan*.
- 益子 渉 1\* Mashiko, W., 2019: A statistical study of wind gusts in Japan using surface observations. *Journal of the Meteorological Society of Japan*, **97**, 39-54, doi:10.2151/jmsj.2019-001.
- 松枝秀和 1\* Ishijima, K., M. Takigawa, Y. Yamashita, H. Yashiro, C. Kodama, M. Satoh, K. Tsuboi, H. Matsueda, Y. Niwa, and S. Hirao, 2018: Analysis of High Radon-222 Concentration Events Using Multi-Horizontal-Resolution NICAM

- Simulations. *SOLA*, **14**, 111-115, doi:10.2151/sola.2018-019.
- 2\* Umezawa, T., H. Matsueda, Y. Sawa, Y. Niwa, T. Machida, and L. Zhou, 2018: Seasonal evaluation of tropospheric CO<sub>2</sub> over the Asia-Pacific region observed by the CONTRAIL commercial airliner measurements. *Atmospheric Chemistry and Physics*, **18**, 14851-14866.
- 3 高辻慎也, 川崎照夫, 中村雅道, 齊藤和幸, 滝沢厚詩, 出原幸志郎, 細川周一, 松枝秀和, 坪井一寛, 2018: 気象庁メタン標準ガス校正装置の更新と新旧データの比較. *測候時報*, **85**, 75-90.
- 4\* Matsueda, H., K. Tsuboi, S. Takatsuji, T. Kawasaki, M. Nakamura, K. Saito, A. Takizawa, K. Dehara, and S. Hosokawa, 2018: Evaluation of a new methane calibration system at JMA for WCC Round Robin experiments. *気象研究所研究報告*, **67**, 57-67, doi:10.2467/mripaper.67.57.
- 水田 亮 1\* S. Noda, K. Kodera, Y. Adachi, M. Deushi, A. Kitoh, R. Mizuta, S. Murakami, K. Yoshida, and S. Yoden, 2018: Mitigation of global cooling by stratospheric chemistry feedbacks in a simulation of the Last Glacial Maximum. *Journal of Geophysical Research Atmosphere*.
- 2\* Yoshida, K., R. Mizuta, and O. Arakawa, 2018: Intermodel differences in upwelling in the tropical tropopause layer among CMIP5 models. *Journal of Geophysical Research Atmosphere*, **123**, 13,658–13,675, doi:10.1029/2018JD029044.
- 3\* Fujita, M., R. Mizuta, M. Ishii, H. Endo, T. Sato, Y. Okada, S. Kawazoe, S. Sugimoto, K. Ishihara, and S. Watanabe, 2019: Precipitation changes in a climate with 2-K surface warming from large ensemble simulations using 60-km global and 20-km regional atmospheric models. *Geophysical Research Letters*, **46**, 435-442, doi:10.1029/2018GL079885.
- 水野吉規 1\* Mizuno, Y., T. Yagi, and K. Mori, 2018: Contribution of attached eddies to the intensity and turbulent transfer of velocity fluctuations in wall-turbulence. *Fluid Dynamics Research*, **50**, 045513, doi:10.1088/1873-7005/aach92.
- 2\* Ooi, K., Y. Mizuno, T. Sogabe, Y. Yamamoto, and S.-L. Zhang, 2018: Solution of a nonlinear eigenvalue problem using signed singular values. *East Asian Journal on Applied Mathematics*, **7**, 799-809, doi:10.4208/eajam.181016.300517c.
- 村田昭彦 1\* Kawase, H., T. Sasai, T. Yamazaki, R. Ito, K. Dairaku, S. Sugimoto, H. Sasaki, A. Murata, M. Nosaka, 2018: Characteristics of synoptic conditions for heavy snowfall in western to northeastern Japan analyzed by the 5-km regional climate ensemble experiments. *Journal of the Meteorological Society of Japan*, **96**, 161-178, doi:10.2151/jmsj.2018-022.
- 2 村田昭彦, 2018: 雲解像地域気候モデルの現状. *混相流*, **32**, 424-431, doi:10.3811/jjmf.2018.T012.
- 3 川瀬宏明, 飯田肇, 青木一真, 島田互, 野坂真也, 村田昭彦, 佐々木秀孝, 2019: 立山黒部アルペンルートにおける積雪観測と異なる水平解像度の非静力学地域気候モデル(NHRCM)を用いた積雪再現実験の比較. *地学雑誌*. (in press)
- 毛利英明 1\* 守永武史, 毛利英明, 八木俊政, 森一安, 萩野谷成徳, 2018: 境界層乱流における安定成層時の風速変動と温度変動. *風工学シンポジウム論文集*. (in press)
- 2\* Mouri, H., T. Morinaga, S. Haginoya, 2019: Unlikely existence of  $k_x^{-1}$  spectral law in wall turbulence: an observation of the atmospheric surface layer. *Physics of Fluids*, **31**, 035103, doi:10.1063/1.5063545.

- 森 健彦 1 森健彦, 篠原英一郎, 菅井明, 満永大輔, 橋本明弘, 山本圭吾, 2018: 二酸化硫黄放出率の自動計測化へ向けた実証実験—火山ガス拡散モデルからの二酸化硫黄放出率推定の試み—. *京都大学防災研究所年報*, **61-B**. (in press)
- 守永武史 1\* 守永武史, 毛利英明, 八木俊政, 森一安, 萩野谷成徳, 2018: 境界層乱流における安定成層時の風速変動と温度変動. *風工学シンポジウム論文集*. (in press)
- 2\* Mouri, H., T. Morinaga, S. Haginoya, 2019: Unlikely existence of  $k_x^{-1}$  spectral law in wall turbulence: an observation of the atmospheric surface layer. *Physics of Fluids*, **31**, 035103, doi:10.1063/1.5063545.
- 谷口無我 1\* Terada, A., Y. Morita, T. Hashimoto, T. Mori, T. Ohba, M. Yaguchi, and W. Kanda, 2018: Water sampling using a drone at Yugama crater lake, Kusatsu-Shirane volcano, Japan. *Earth, Planets and Space*, **70**, 64, doi:10.1186/s40623-018-0835-3.
- 2\* Minoru Kusakabe, Rosine E. Tiodjio, Bruce Christenson, Kazuto Saiki, Takeshi Ohba, Muga Yaguchi, 2019: Enrichment of ferrous iron in the bottom water of Lake Nyos. *Journal of African Earth Sciences*, **150**, 37-46, doi:10.1016/j.jafrearsci.2018.10.014.
- 3\* Kaori Seki, Takeshi Ohba, Shinnosuke Aoyama, Yuichiro Ueno, Hirochika Sumino, Wataru Kanda, Muga Yaguchi, Toshiya Tanbo, 2019: Variations in thermal state revealed by the geochemistry of fumarolic gases and hot-spring waters of the Tateyama volcanic hydrothermal system, Japan. *Bulletin of Volcanology*, **81**: 8. doi:10.1007/s00445-018-1264-7.
- 4 大場武, 西野佳奈, 沼波望, 谷口無我, 外山浩太郎, 角野浩史, 寺田暁彦, 神田径, 2019: 草津白根山噴気の化学組成・安定同位体比(2014年7月~2018年10月). *火山噴火予知連絡会会報*, **131**, 146-152.
- 5 大場武, 西野佳奈, 沼波望, 谷口無我, 2019: 伊豆大島三原山噴気に検出された水素ガス. *火山噴火予知連絡会会報*, **131**, 200-202.
- 6 谷口無我, 大場武, 福岡管区气象台, 鹿児島地方气象台, 2019: 霧島山硫黄山周辺の湯溜り・湧水の化学組成(2018年10月19日現在). *火山噴火予知連絡会会報*, **131**, 360-363.
- 7 大場武, 西野佳奈, 沼波望, 谷口無我, 外山浩太郎, 角野浩史, 2019: 霧島硫黄山噴気の化学組成(2018年10月19日)および環境大気 H<sub>2</sub>S 濃度変化. *山噴火予知連絡会会報*, **131**, 360-363.
- 柳瀬亘 1\* Tochimoto, E., S. Yokota, H. Niino and W. Yanase, 2019: Mesoscale convective vortex that causes tornado-like vortices over the sea: A potential risk to maritime traffic. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0302.1. (in press)
- 山口宗彦 1\* 伊藤耕介, 沢田雅洋, 山口宗彦, 2018: 高解像度大気モデル及び大気海洋結合モデルを用いた北西太平洋全域台風予測実験. *気象研究所研究報告*, **67**, 15-34, doi:10.2467/mripapers.67.15.
- 2\* Ito, K., M. Sawada, and M. Yamaguchi, 2018: Tropical cyclone forecasts in the Western North Pacific with high-resolution atmosphere and coupled models. *気象研究所研究報告*, **67**, 15-34.
- 3\* Ito, K., H. Yamada, M. Yamaguchi, T. Nakazawa, N. Nagahama, K. Shimizu, T. Ohigashi, T. Shinoda, and K. Tsuboki, 2018: Analysis and Forecast Using Dropsonde Data from the Inner-Core Region of Tropical Cyclone Lan (2017) Obtained during the First Aircraft Missions of T-PARCI. *SOLA*, **14**, 105-110, doi:10.2151/sola.2018-018.

- 4\* Yamaguchi, M., H. Owada, U. Shimada, M. Sawada, T. Iriguchi, K. D. Musgrave, and M. DeMaria, 2018: Tropical Cyclone Intensity Prediction in the Western North Pacific Basin using SHIPS and JMA/GSM.. *SOLA*, **14**, 138-143, doi:10.2151/sola.2018-024.
- 5\* Zhou, F., W. Duan, Z. He, and M. Yamaguchi, 2018: Possible Sources of Forecast Errors Generated by the Global/Regional Assimilation and Prediction System for Landfalling Tropical Cyclones. Part II: Model Uncertainty. *Advances in Atmospheric Sciences*, **35**, 1277-1290.
- 6 筆保弘徳, 山田広幸, 宮本佳明, 伊藤耕介, 山口宗彦, 金田幸恵, 2018: 台風についてわかっていることと知らないこと. *台風についてわかっていることと知らないこと*, ベレ出版, 242pp, ISBN: 978-4860645557.
- 7 山口宗彦, 2018: 航空機観測の熱帯低気圧予測へのインパクト. *天気*, **65**, 733-737.
- 8\* Shimada, U., H. Owada, M. Yamaguchi, T. Iriguchi, M. Sawada, K. Aonashi, M. DeMaria, and K. Musgrave, 2018: Further Improvements to the Statistical Hurricane Intensity Prediction Scheme Using Tropical Cyclone Rainfall and Structural Features . *Weather and Forecasting*, **33**, 1587-1603, doi:10.1175/WAF-D-18-0021.1.
- 9 山口宗彦, 嶋田宇大, 沢田雅洋, 入口武史, 大和田浩美, 2019: 台風予報・解析技術高度化プロジェクトチームによる 5 日先台風強度予報ガイダンスの開発. *気象研究所技術報告*, **82**, 60, doi:10.11483/mritechrepo.82.
- 山崎明宏 1\* Uchiyama, A., B. Chen, A. Yamazaki, G. Shi, R. Kudo, C. Nishita-Hara, M. Hayashi, A. Habib, T. Matsunaga, 2018: Aerosol Optical Characteristics in Fukuoka and Beijing Measured by Integrating Nephelometer and Aethalometer: Comparison of Source and Downstream Regions. *Journal of the Meteorological Society of Japan*, **96**, 215-240, doi:10.2151/jmsj.2018-026.
- 2\* Jin Y., N. Sugimoto, A. Shimizu, T. Nishizawa, K. Kai, K. Kawai, A. Yamazaki, M. Sakurai, and H. Wille, 2018: Evaluation of ceilometer attenuated backscattering coefficients for aerosol profile measurement. *Journal of Applied Remote Sensing*, **12**.
- 3\* Uchiyama, A., T. Matsunaga, and A. Yamazaki, 2018: The instrument constant of sky radiometers (POM-02) – Part 1: Calibration constant . *Atmospheric Measurement Techniques*, **11**, 5363–5388.
- 4\* Uchiyama, A., T. Matsunaga, and A. Yamazaki, 2018: The instrument constant of sky radiometers (POM-02) – Part 2: Solid view angle . *Atmospheric Measurement Techniques*, **11**, 5389-5402.
- 山田芳則 1\* Campbella L. S., W. J. Steenburgh, Y. Yamada, M. Kawashima, and Y. Fujiyoshi, 2018: Influences of Orography and Coastal Geometry on a Transverse-Mode Sea-Effect Snowstorm over Hokkaido Island, Japan . *Monthly Weather Review*, **146**, 2201-2220, doi:10.1175/MWR-D-17-0286.1.
- 2\* Ohtake, H., F. Uno, T. Oozeki, Y. Yamada, H. Takenaka, T. Y. Nakajima, 2018: Outlier events of solar forecasts for regional power grid in Japan using JMA mesoscale model. *Energies*, **11**, 2714, doi:10.3390/en11102714.
- 3\* Ohtake, H., F. Uno, T. Oozeki, Y. Yamada, H. Takenaka, and T. Y. Nakajima, 2018: Estimation of satellite-derived regional photovoltaic power generation using a satellite-estimated solar radiation data. *Energy Science & Engineering*, **6**, 570-583, doi:10.1002/ese3.233.

- 4 ③ 大竹秀明, 宇野史睦, 大関 崇, 山田芳則, 2018: 最新の気象庁現業数値予報モデルの日射量予測の検証. *電気学会論文誌 B*, **138**, 881-892.
- 山中吾郎 1\* Nakano, H., H. Tsujino, K. Sakamoto, S. Urakawa, T. Toyoda, and G. Yamanaka, 2018: Identification of the fronts from the Kuroshio Extension to the Subarctic Current using absolute dynamic topographies in satellite altimetry products. *Journal of Oceanography*, **74**, 393-420, doi:10.1007/s10872-018-0470-4.
- 2\* 坂本圭, 辻野博之, 中野英之, 浦川昇吾, 山中吾郎, 2018: Git と Redmine を用いた気象研究所共用海洋モデル「MRI.COM」の開発管理. *海の研究*, **27**, 175-188.
- 3 豊田隆寛, 岩本勉之, 浦川昇吾, 辻野博之, 中野英之, 坂本圭, 山中吾郎, 小室芳樹, 西野茂人, 浮田甚郎, 2019: 衛星観測の薄氷データを用いた海洋・海水シミュレーションの改善. *月刊海洋*, **51**, 121-127.
- 4\* Toyoda, T., N. Hirose, L. S. Urakawa, H. Tsujino, H. Nakano, N. Usui, Y. Fujii, K. Sakamoto, and G. Yamanaka, 2019: Effects of inclusion of adjoint sea ice rheology on backward sensitivity evolution examined using an adjoint ocean-sea ice model. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0198.1. (in press)
- 5\* Ishizaki, H., T. Nakano, H. Nakano, and G. Yamanaka, 2019: Interdecadal variability of the North Equatorial Undercurrent (NEUC) found in the longterm hydrographic observation along 137 °E. *Journal of Oceanography*, doi:10.1007/s10872-019-00509-6. (in press)
- 山本 哲 1 山本哲, 2018: 地球の反対側で気象学史: 第 25 回国際科学史会議に参加して. *天気*, **65**, 425-429.
- 2 YAMAMOTO, A., 2018: Henry Batson Joyner (1839-1884), weather observer in England, Japan and Brazil. *Japanese Association for the History of Geosciences Newsletter*, **20**, 3-6.
- 3 山本哲, 2018: 「野中千代子は気象学会の会員だったか?」-40 年前に示された答. *天気*, **65**, 601-603.
- 4\* 川端康弘, 山本哲, 志藤文武, 清野直子, 2018: 観測環境の違いによる気温の鉛直分布と変動の特徴について. *風工学シンポジウム論文集*, **25**, 139-144.
- 山本哲也 1\* Kajino, M., M. Deushi, T. T. Sekiyama, N. Oshima, K. Yumimoto, T. Y. Tanaka, J. Ching, A. Hashimoto, T. Yamamoto, M. Ikegami, A. Kamada, M. Miyashita, Y. Inomata, S. Shima, K. Adachi, Y. Zaizen, Y. Igarashi, H. Ueda, T. Maki, M. Mikami., 2018: NHM-Chem, the Japan Meteorological Agency's regional meteorology - chemistry model: model evaluations toward the consistent predictions of the chemical, physical, and optical properties of aerosols,. *Journal of the Meteorological Society of Japan*.
- 横田 祥 1\* Yokota, S., H. Niino, H. Seko, M. Kunii, and H. Yamauchi, 2018: Important factors for tornadogenesis as revealed by high-resolution ensemble forecasts of the Tsukuba supercell tornado of 6 May 2012 in Japan. *Monthly Weather Review*, **146**, 1109-1132, doi:10.1175/MWR-D-17-0254.1.
- 2 横田祥, 瀬古弘, 國井勝, 山内洋, 2018: LETKF ネストシステムによる稠密観測データの同化実験-2012 年 5 月 6 日に関東地方で発生した竜巻の事例について-. *気象研究ノート「都市における極端気象の観測・予測・情報伝達」*, **236**, 242-249.
- 3\* Yokota, S., H. Seko, M. Kunii, H. Yamauchi, and E. Sato, 2018: Improving short-term rainfall forecasts by assimilating weather radar reflectivity using additive ensemble perturbations. *Journal of Geophysical Research*

- Atmosphere*, **123**, 9047-9062, doi:10.1029/2018JD028723.
- 4 鵜沼昂, 吉住蓉子, 春日悟, 下瀬健一, 加藤亮平, 柘本英伍, 渡邊俊一, 末木健太, 津口裕茂, 横田祥, 2018: 第5回メソ気象セミナー開催報告. *天気*, **65**, 757-763.
- 5 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 2019: データ同化とアンサンブル予報による竜巻発生過程の解析. *ながれ*, **38-1**, 8-13.
- 6\* 大谷修一, 仲田直樹, 石本歩, 秋枝周子, 風早範彦, 西森靖高, 中村剛, 依岡幸広, 立神達朗, 岩田奉文, 瀬古弘, 横田祥, 2019: 下層インフローに着目した大雨と環境場との関係に関するアンサンブル予報実験による解析 —平成26年8月19~20日に発生した広島県南部の大雨事例—. *天気 (論文・短報)*, **66**, 141-160.
- 7 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 2019: 竜巻のアンサンブル予報. *気象研究ノート「竜巻を識る」*. (in press)
- 8 横田祥, 新野宏, 瀬古弘, 國井勝, 山内洋, 佐藤英一, 2019: 高解像度アンサンブル予報を用いた竜巻の発生要因の解析. *月刊海洋号外「新野宏教授退職記念号」*. (in press)
- 9\* Tochimoto, E., S. Yokota, H. Niino and W. Yanase, 2019: Mesoscale convective vortex that causes tornado-like vortices over the sea: A potential risk to maritime traffic. *Monthly Weather Review*, doi:10.1175/MWR-D-18-0302.1. (in press)
- 吉田康平 1\* C. Orbe et al., 2018: Large-scale tropospheric transport in the Chemistry–Climate Model Initiative (CCMI) simulations. *Atmospheric Chemistry and Physics*, **18**, 7217-7235, doi:10.5194/acp-18-7217-2018.
- 2\* S. Noda, K. Kodera, Y. Adachi, M. Deushi, A. Kitoh, R. Mizuta, S. Murakami, K. Yoshida, and S. Yoden, 2018: Mitigation of global cooling by stratospheric chemistry feedbacks in a simulation of the Last Glacial Maximum. *Journal of Geophysical Research Atmosphere*.
- 3\* B. Ayarzagüena et al, 2018: No Robust Evidence of Future Changes in Major Stratospheric Sudden Warmings: A Multi-model Assessment from CCMI. *Atmospheric Chemistry and Physics*, **18**, 11277-11287, doi:10.5194/acp-18-11277-2018.
- 4\* Maycock, A. C., Matthes, K., Tegtmeier, S., Schmidt, H., Thiéblemont, R., Hood, L., Bekki, S., Deushi, M., Jöckel, P., Kirner, O., Kunze, M., Marchand, M., Marsh, D. R., Michou, M., Revell, L. E., Rozanov, E., Stenke, A., Yamashita, Y., and Yoshida, K., 2018: The representation of solar cycle signals in stratospheric ozone. Part 2: Analysis of global models. *Atmospheric Chemistry and Physics*, **18**, 11323-11343, doi:10.5194/acp-18-11323-2018.
- 5\* Yoshida, K., R. Mizuta, and O. Arakawa, 2018: Intermodel differences in upwelling in the tropical tropopause layer among CMIP5 models. *Journal of Geophysical Research Atmosphere*, **123**, 13,658–13,675, doi:10.1029/2018JD029044.
- 吉田 智 1 吉田智, 2018: 雷放電の電磁波観測技術. *大気電気学会誌*, **Vol. 12 No. 1**, 32-44.
- 2\* Sakai, T., T. Nagai, T. Izumi, S. Yoshida, and Y. Shoji, 2019: Automated compact mobile Raman lidar for water vapor measurement: instrument description and validation by comparison with radiosonde, GNSS, and high-resolution objective analysis. *Atmospheric Measurement Techniques*, **12**, 313-326, doi:10.5194/amt-12-313-2019.
- 3\* Yoshida, S., E. Yoshikawa, T. Adachi, K. Kusunoki, S. Hayashi, and H. Inoue, 2019: Three dimensional radio images of winter lightning in Japan and characteristics of associated charge structure. *IEEJ Transactions on Electrical*

*and Electronic Engineering*, **14**, 175-184, doi:10.1002/tee.22795.

- 吉村裕正 1 Wada, A., H. Yoshimura, and M. Nakagawa, 2018: Sensitivity of the prediction of Typhoon Lionrock (2016) to the parameter in the cloud scheme using the 7-km mesh nonhydrostatic global spectral atmospheric Double Fourier Series Model (DFSM). *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 4-11.
- 2 Wada, A., H. Yoshimura, and M. Nakagawa, 2018: Sensitivity of the prediction of Typhoon Lionrock (2016) to the surface boundary scheme using the 7-km mesh nonhydrostatic global spectral atmospheric Double Fourier Series Model (DFSM). *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 4-13.
- 和田章義 1 Wada, A., H. Yoshimura, and M. Nakagawa, 2018: Sensitivity of the prediction of Typhoon Lionrock (2016) to the parameter in the cloud scheme using the 7-km mesh nonhydrostatic global spectral atmospheric Double Fourier Series Model (DFSM). *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 4-11.
- 2 Wada, A., H. Yoshimura, and M. Nakagawa, 2018: Sensitivity of the prediction of Typhoon Lionrock (2016) to the surface boundary scheme using the 7-km mesh nonhydrostatic global spectral atmospheric Double Fourier Series Model (DFSM). *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 4-13.
- 3 Wada, A., H. Tsuguti, and H. Yamada, 2018: Formation and propagation of shield-like precipitation pattern in the Eastern China Sea remotely enhanced by Typhoon Nepartak (2016) simulated by an atmosphere-wave-ocean coupled model. *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 5-13.
- 4 Wada, A., and N. Seino, 2018: Numerical simulations on a local heavy rainfall event south of Kanto region by using a coupled atmosphere-wave-ocean model with the regional air-sea coupled data assimilation system based on NHM-LETKF. *Research Activities in Atmospheric and Oceanic Modelling*, **48**, 9-03.
- 5\* Wada, A., S. Kanada, and H. Yamada, 2018: Effect of air-sea environmental conditions and interfacial processes on extremely intense typhoon Haiyan (2013). *Journal of Geophysical Research Atmosphere*, **123**, 10379-10405, doi:10.1029/2017JD028139.
- 6\* Wada, A., and R. Oyama, 2018: Relation of convective bursts to changes in the intensity of Typhoon Lionrock (2016) during the decay phase simulated by an atmosphere-wave-ocean coupled model. *Journal of the Meteorological Society of Japan*, **96**, 489-509, doi:10.2151/jmsj.2018-052.
- 7 和田章義, R. P.Gile, 嶋田宇大, 佐藤信夫, 青梨和正, 山田広幸, 2019: 非静力学モデルによるフィリピン来襲台風の降水予測可能性. 台風研究会 大規模・広域・複合台風災害の発生要因の理解と減災に向けて, 30K-03, 53-58.