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1952年 宮城県生まれ

学歴

1977年3月東北大学大学院理学研究科 修士課程修了

1980年3月東北大学大学院理学研究科 博士課程単位取得退学 (同年4月博士学位取得)

職歴

1980年4月札幌管区気象台技術部・技官

1983年4月気象庁予報部電子計算室・技官

1987年4月気象庁予報部数値予報課・予報官

1997年4月気象庁予報部数値予報課数値・予報班長

1998年4月東北大学大学院理学研究科・教授

2018年4月東北大学大学院理学研究科・名誉教授・特任教授(研究)

2022年4月東北大学大学院理学研究科・名誉教授・客員研究者

学会活動 (日本気象学会：主なもの)

日本気象学会理事 (2002-2020)

J. Meteorological Society of Japan 編集委員長 (2004-2008)

気象研究コンソーシアム検討委員会委員長 (2006-2008、2010-2012)

日本気象学会学術委員会委員長 (2008-2016)

日本気象学会理事長 (2016-2020)

受賞

2008年日本気象学会賞「温位面上での質量重み付き帯状平均を用いた大気大循環の研究」

2012年 SOLA論文賞: *Mass-Weighted Isentropic Zonal Mean Equatorward Flow in the Northern Hemispheric*

Winter by T. Iwasaki and Y. Mochizuki (SOLA, 8, 115-118, doi:10.2151/sola.2012-029)

2022年日本気象学会藤原賞「大気力学や数値モデルに関する研究ならびに気象学・数値予報発展への貢献」

論文 (Refereed Papers)

1. Kanno, Y., T. Iwasaki, 2022: Future changes of atmospheric energy cycle in CMIP5 climate models, J. Geophys. Res. <https://doi.org/10.1029/2021JD036380>
2. Kobayashi, C., S. Maeda, Y. Kanno, and T. Iwasaki, 2022: Extremely weak cold-air mass flux and extratropical direct meridional circulation linked to the record-warm winter 2019/2020 over East Asia. SOLA, 18, 1-7, doi:10.2151/sola.2022-001. <https://doi.org/10.2151/sola.2022-001>.
3. Ohara, R., T. Iwasaki, and T. Yamazaki, 2021: Impacts of evaporative cooling from raindrops on the frontal heavy rainfall formation over western Japan on 5-8 July 2018. J. Meteor. Soc. Japan, 99, 1351-1369, <https://doi.org/10.2151/jmsj.2021-065>
4. Liu, Q., G. Chen, Y. Kanno, & T. Iwasaki, 2021: Southward Cold Air mass Flux Associated with the East Asian Winter Monsoon: Diversity and Impacts. J. Clim. 34, 3239-3254. DOI: <https://doi.org/10.1175/JCLI-D-20-0319.1>

5. Kento SUZUKI, Toshiki IWASAKI, Takeshi YAMAZAKI, 2021: Analysis of Systematic Error in Numerical Weather Prediction of Coastal Fronts in Japan's Kanto Plain, *J. Meteorol. Soc. Japan. Ser. II*, 99, 27-47. DOI: <https://doi.org/10.2151/jmsj.2021-002>
6. Muhammad R. A., Y. Kanno, T. Iwasaki, and J. Matsumoto, 2021: Cold Surge Pathways in East Asia and Their Tropical Impacts. *J. Clim.* **34**, 157-170. DOI: <https://doi.org/10.1175/JCLI-D-20-0552.1>
7. Liu, Q., Chen, G., & Iwasaki, T., 2020: Long-term trends and impacts of polar cold airmass in boreal summer. *Environ. Res. Lett.* 15 084042. <https://doi.org/10.1088/1748-9326/ab986d>
8. Aono, K., T. Iwasaki, and T. Sasai, 2020: Effects of wind-evaporation feedback in outer regions on tropical cyclone development. *J. Meteor. Soc. Japan*, 98, 319–328, <https://doi.org/10.2151/jmsj.2020-017>
9. Kanno, Y., & Iwasaki, T., 2020: Future reductions in polar cold air mass and cold air outbreaks revealed from isentropic analysis. *Geophys. Res. Lett.*, 47, e2019GL086076. <https://doi.org/10.1029/2019GL086076>
10. Sasai, T., H. Kawase, H., Kanno, Y., J. Yamaguchi, S. Sugimoto, T. Yamazaki, H. Sasaki, M. Fujita, T. Iwasaki, 2019: Future projection of extreme heavy snowfall events with a5 - km large ensemble regional climate simulation. *J. Geophys. Res. Atmos.*, 124, 975–13,990. <https://doi.org/10.1029/2019JD030781>
11. Liu, Q., Chen, G., & Iwasaki, T., 2019: Quantifying the impacts of cold airmass on aerosol concentrations over North China using isentropic analysis. *J. Geophys. Res. Atmos.*, 124, 7308–7326. <https://doi.org/10.1029/2018JD029367>
12. Kinoshita, K., Takaya, K., Iwasaki, T., 2019: On the Three Dimensional Mass-Weighted Isentropic Time Mean Equation for Rossby waves. *SOLA*, 15, 193-197, <https://doi.org/10.2151/sola.2019-035>
13. Iwasaki, T., T. Thomas Sekiyama, T. Nakajima, A. Watanabe, Y. Suzuki, H. Kondo, Y. Morino, H. Terada, H. Nagaih, M. Takigawa, H. Yamazawa, D. Quélok, A. Mathieuk, 2019: Intercomparison of numerical atmospheric dispersion prediction models for emergency response to emissions of radionuclides with limited source information in the Fukushima Dai-ichi nuclear power plant accident. *Atmos. Environ.* 214, 1 October 2019, 116830. <https://doi.org/10.1016/j.atmosenv.2019.116830>
14. Shimpō, A., Takemura, K., Wakamatsu, S., Togawa, H., Mochizuki, Y., Takekawa, M., Tanaka, S., Yamashita, K., Maeda, M., Kurora, R., Murai, M., Kitabatake, N., Tsuguti, H., Mukougawa, H., Iwasaki, T., Kawamura, R., Kimoto, M., Takayabu, I., Takayabu, Y. N., Tanimoto, Y., Hirooka, Y., Masumoto, Y., Watanabe, M., Tsuboki, K., Nakamura, H., 2019: Primary Factors behind the Heavy Rain Event of July 2018 and the Subsequent Heat Wave in Japan. *SOLA*. 2019, 15A, 13-18. <https://doi.org/10.2151/sola.15A-003>
15. Kanno, Y., J. Walsh, M. R. Abdillah, J. Yamaguchi, T. Iwasaki, 2019: Indicators and trends of polar cold airmass. *Environ. Res. Lett.*, 14. <https://dx.doi.org/10.1088/1748-9326/aaf42b>
16. Yamaguchi, J., Y. Kanno, G. Chen, T. Iwasaki, 2019: Cold Air Mass Analysis of the Record-Breaking Cold Surge Event over East Asia in January 2016. *J. Meteor. Soc. Japan*, 97(1), 275-293. DOI: <https://doi.org/10.2151/jmsj.2019-015>
17. 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. *J. Geophys. Res. Atmos.*, 124, <https://doi.org/10.1029/2018JD029017>
18. Fukui, S., T. Iwasaki, K. Saito, H. Seko, M. Kunii, 2018: A Feasibility Study on the High-Resolution Regional Reanalysis over Japan Assimilating Only Conventional Observations as an Alternative to the Dynamical Downscaling. *J. Meteor. Soc. Japan*, 96 (6), 565-585. DOI: <https://doi.org/10.2151/jmsj.2018-056>
19. Abdillah, M.R., Kanno, Y., Iwasaki, T., 2018: Strong Linkage of El Niño–Southern Oscillation to the Polar Cold Air Mass in the Northern Hemisphere. *Geophys. Res. Lett.*, 45, 5643-5652. <https://doi.org/10.1029/2018GL077612>
20. Kanno, Y., Iwasaki, T., 2018: Three-dimensional structure of mass-weighted isentropic time-mean meridional circulations. *J. Atmos. Sci.*, 75, 2029-2047. DOI: <https://doi.org/10.1175/JAS-D-17-0154.1>
21. Sekiyama, T.T., Iwasaki, T., 2018: Mass flux analysis of ¹³⁷Cs plumes emitted from the Fukushima Daiichi nuclear power plant. *Tellus B.*, 70. <https://doi.org/10.1080/16000889.2018.1507390>
22. Indira, K., T. Yamazaki, T. Iwasaki and Muhammad Rais Abdillah, 2018: Projection of future monsoon precipitation over the central Himalayas by CMIP5 models under warming scenarios. *Climate Res.*, 75, DOI: <https://doi.org/10.3354/cr01497>
23. Shimada, T., Y. Kanno and T. Iwasaki, 2018: Low-level cool air over the mid-latitude oceans in summer. *J.*

Climate 31(5), 2075-2090. <https://doi.org/10.1175/JCLI-D-17-0188.1>

24. Muhammad Rais Abdillah, Y. Kanno and T. Iwasaki, 2018: Tropical-extratropical interactions associated with East Asian cold air outbreaks. Part II: Intraseasonal variation. *J. Climate*, 31(2), 473-490. <https://doi.org/10.1175/JCLI-D-17-0147.1>
25. Kanno, Y., J. Walsh, T. Iwasaki, 2017: Interannual Variability of the North American Cold Air Stream and Associated Synoptic Circulations. *J. Climate*, 30(23), 9575-9590. <https://doi.org/10.1175/JCLI-D-17-0104.1>
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28. G. Chen, W. Sha, T. Iwasaki, and Z. Wen, 2017: Diurnal Cycle of a Heavy Rainfall Corridor over East Asia, *Mon. Wea. Rev.*, 145, 3369-3385. <https://doi.org/10.1175/MWR-D-16-0423.1>
29. Abdillah, M. R., Y. Kanno, and T. Iwasaki, 2017: Tropical–Extratropical Interactions Associated with East Asian Cold Air Outbreaks. Part I: Interannual Variability, *J. Climate*, 30, 2989-3007. <http://dx.doi.org/10.1175/JCLI-D-16-0152.1>
30. Kinoshita, T., T. Iwasaki and K. Sato, 2016: A Formulation of Three Dimensional Wave Activity Flux Describing Wave Propagation on the Mass-Weighted Isentropic Time Mean Equation. *SOLA*, 2016, Vol. 12, 198–202, <http://dx.doi.org/10.2151/sola.2016-040>
31. Koumoto, T., N. Saito, N. Aoki, T. Iwasaki, S. Kawai, S. Yokoi & H. Shimono, 2016: Effects of salt and low light intensity during the vegetative stage on susceptibility of rice to male sterility induced by chilling stress during the reproductive stage. *Plant Production Science*, DOI: <http://dx.doi.org/10.1080/1343943X.2016.1190283>
32. Kanno, Y., M. R. Abdillah, and T. Iwasaki, 2016: Long-term trend of cold air mass amount below a designated potential temperature in Northern and Southern Hemispheric winters using reanalysis data sets, *J. Geophys. Res. Atmos.*, 121,10,138–10,152, <http://dx.doi.org/10.1002/2015JD024635>
33. Miyazaki, K., T. Iwasaki, Y. Kawatani, C. Kobayashi, S. Sugawara, and M. I. Hegglin, 2016: Inter-comparison of stratospheric mean-meridional circulation and eddy mixing among six reanalysis data sets, *Atmos. Chem. Phys.*, 16, 6131-6152. <http://www.atmos-chem-phys.net/16/6131/2016/> <http://dx.doi.org/10.5194/acp-16-6131-2016>
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35. Kobayashi, C., and T. Iwasaki, 2016: Brewer - Dobson circulation diagnosed from JRA-55, *J. Geophys. Res. Atmos.*, 121, 1494-1510. <http://dx.doi.org/10.1002/2015JD023476>.
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38. Kanno, Y., M. R. Abdillah, and T. Iwasaki, 2015: Charge and discharge of polar cold air mass in northern hemispheric winter, *Geophys. Res. Lett.*, 42, doi: <http://dx.doi.org/10.1002/2015GL065626>.
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41. Sawada, M., T. Sakai, T. Iwasaki, H. Seko, K. Saito and T. Miyoshi, 2015: Assimilating high-resolution winds from a Doppler lidar using an ensemble Kalman filter with lateral boundary adjustment. *Tellus, A*, 67, 23473,

<http://dx.doi.org/10.3402/tellusa.v67.23473>.

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43. Chen, G., X. Zhu, W. Sha, T. Iwasaki, H. Seko, K. Saito, H. Iwai, and S. Ishii, 2015: Toward improved forecasts of sea-breeze horizontal convective rolls at super high resolutions. Part II: The impacts of land use and buildings. *Mon. Wea. Rev.*, 143, 1873-1894, doi: <http://dx.doi.org/10.1175/MWR-D-14-00230.1>
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46. Chen, G., T. Iwasaki, H. Qin, and W. Sha, 2014: Evaluation of the warm-season diurnal variability over East Asia in recent reanalyses JRA-55, ERA-Interim, NCEP CFSR, and NASA MERRA. *J. Climate*, 27(14), 5517-5537. doi: <http://dx.doi.org/10.1175/JCLI-D-14-00005.1>
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単行本

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