

List of Publications for the Academic Year 2024

[a] Human Geography

- Mao, Y. and Kubo, T. (2025): Spatiotemporal characteristics of ICT use among Chinese older adults: A Case Study of Tianjin. *Network and Communication Studies*, 38-3/4. <https://doi.org/10.4000/13567>
- Matsui, K. (2025): Religion and Tourism in Japan. In: L. Kong. ed., *Handbook of the Geographies of Religion*. Springer, 951-965. https://doi.org/10.1007/978-3-031-64811-3_52

[b] Regional Geography

- Hashimoto, M., Lu, T., Shimura, R., Kumase, T., Matsumoto, T., Yamashita, A. and Tsuda, Y. (2025): Countermeasures against animal damages due to changing distribution of wild animals and related issues in Omachi City, Nagano Prefecture. *Annals of Human and Regional Geography*, **47**, 57-80. (J) <https://www.geoenv.tsukuba.ac.jp/~chicho/nenpo/47/5.pdf>
- Kureha, M. (2024): Mountain resort. In the Japan Association of Economic Geographers ed., *The Encyclopedia of Economic Geography*. Maruzen Pub., 346-347. (J)
- Liu, Y., Yamauchi M., Huang, X., Wang, Y. and Kureha, M. (2025): A study on the transition of religious tourism and the sustainability of Shukubo (pilgrims' lodgings) in Togakushi Area. *Annals of Human and Regional Geography*, **47**, 125-135. (J) <https://www.geoenv.tsukuba.ac.jp/~chicho/nenpo/47/9.pdf>
- Sakamoto, Y. and Yamashita, A. (2024): Children's Use of Waterfront Areas and Perspectives of Guardians in Mishima City, Shizuoka Prefecture, Japan. *The New Geography*, **72**(3), 18-30. (JE) https://doi.org/10.5996/newgeo.72.3_18
- Sato, D., Lin, Z., Kuroda, S. and Kureha, M. (2025): A study of the factors maintaining Hakuba Mountain Guide Association: Focusing on the sustained existence of immigrants and regional Characteristics. *Annals of Human and Regional Geography*, **47**, 109-124. (J) . <https://www.geoenv.tsukuba.ac.jp/~chicho/nenpo/47/8.pdf>
- Tian, M., Kamidoi, H., Tanaka, H., Tamaki, R., Zhang, H., Liu, Z. and Tsutsumi, J. (2025): Current state of Omachi City's Hon-dori shopping street and its revitalisation through administrative support. *Annals of Human and Regional Geography*, **47**, 1-15. (J) <https://www.geoenv.tsukuba.ac.jp/~chicho/nenpo/47/1.pdf>
- Tsutsumi, J. (2024): Overview and current status of the compact city in Melbourne. *Estrela*, **368**, 15-19. (J)
- Tsutsumi, J. (2025a): Chapter 2: Geography. In Sugita, H. ed. *Modern Australian politics*. Houbunsha co., ltd, 21-35. (J)
- Tsutsumi, J. (2025b): Chapter 2: Hokkaido -Majestic natural landscapes and a continental geocultural milieu-. In Nihei, T. and Kikuchi, T. eds. *Regional geography of Japan*. Asakura Shoten, 15-26. (J)

[c] Spatial Information Science

- Abe, H., Kusaka, H., Azegami, Y. and Tanaka, H. (2025): Spatial structure of local winds "Rokko-oroshi": A case study using Doppler lidar observation and WRF simulation. *Atmospheric Science Letters*, **26**(2), e1294. <https://doi.org/10.1002/asl.1294>
- Anuruddha, M. C., Morimoto, T., Gamage, S. and Marikar, F. (2025): Assessing the

- Economic and Ecological Costs of Human–Wildlife Conflict in Nuwara Eliya. *Ecologies*, **6**(1), 6. <https://doi.org/10.3390/ecologies6010006>
- Derdouri, A., Murayama, Y., Morimoto, T., Wang, R. and Aghasi, N. H. M. (2024): Urban green space in transition: A cross-continental perspective from eight Global North and South cities. *Landscape and Urban Planning*, **253**, 105220. <https://doi.org/10.1016/j.landurbplan.2024.105220>
- Derdouri, A., Satour, N., Murayama, Y., Morimoto, T., Osaragi, T. and Salhi, A. (2024): Coastal satellite urbanization in the global south: Dynamics, sustainability dilemmas, and pathways for Martil, Morocco. *Cities*, **149**, 104981. <https://doi.org/10.1016/j.cities.2024.104981>
- Kusaka, H., Ikeda, R., Sato, T., Iizuka, S. and Boku, T. (2024): Development of a Multi-Scale Meteorological Large-Eddy Simulation Model for Urban Thermal Environmental Studies: The “City-LES” Model Version 2.0. *Journal of Advances in Modeling Earth Systems*, **16**, e2024MS004367. <https://doi.org/10.1029/2024MS004367>
- Kusaka, H., Imai, Y., Kobayashi, H., Doan, Q. V. and Ngo-Duc, T. (2024): Influence of foehn winds of Truong Son Mountains on the high temperatures observed in North-Central Vietnam during May 31-June 5, 2017. *Journal of Applied Meteorology and Climatology*, **63**(5), 597-616. <https://doi.org/10.1175/JAMC-D-23-0010.1>
- Magnaye, A. M. T. and Kusaka, H. (2024): Potential effect of urbanization on extreme heat events in Metro Manila Philippines using WRF-UCM. *Sustainable Cities and Society*, **110**, 105584. <https://doi.org/10.1016/j.scs.2024.105584>
- Magnaye, A. M. T. and Kusaka, H. (2025): Enhancing Numerical Simulation Accuracy for Extreme Heat Events in Metro Manila. *SOLA*, **21**, 76-84. <https://doi.org/10.2151/sola.2025-010>
- Mailisu and Matsushita, B. (2024): Enhancing inherent optical property estimation in various water bodies by integrating machine learning and quasi-analytical algorithm. *Proceedings of the 77th Autumn Conference of the Remote Sensing Society of Japan, November 26-27, Yamaguchi Center for the Promotion of Health*.
- Nakamura, Y., Asano, Y., Suzuki-Parker, A. and Kusaka, H. (2024): Verification of heat stress mitigation effects by UV parasols using UTCI observations and thermal sensory questionnaire survey. *Building and Environment*, **266**, 112025. <https://doi.org/10.1016/j.buildenv.2024.112025>
- Pan, Y., Morimoto, T. and Ichinose, T. (2024a): Extraction of Building Data from High-Resolution Satellite Images Using Machine Learning “samgeo.” *Proceedings of the General Meeting of the Association of Japanese Geographers*, 2025s, 17. (J) https://doi.org/10.14866/ajg.2025s.0_101
- Pan, Y., Morimoto, T. and Ichinose, T. (2024b): Combining multi-source satellite data with a microclimate model to analyze the microclimate of an urban park. *Climate*, **12**(12), 197. <https://doi.org/10.3390/cli12120197>
- Sathsara, K. T. L. and Kusaka, H. (2025): Impact of high-resolution land use data on numerical simulations of Colombo’s thermal environment during heatwaves. *Theoretical and Applied Climatology*, **156**, 106. <https://doi.org/10.1007/s00704-024-05242-9>
- Sato, T., Hino, H. and Kusaka, H. (2024): Separating urban heat island circulation and convective cells through dynamic mode decomposition. *Atmospheric Science Letters*, **25**(12), e1279. <https://doi.org/10.1002/asl.1279>
- Syed Mahbar, S. F. and Kusaka, H. (2024a): Synergistic interactions between urban heat

- islands and heat waves in the Greater Kuala Lumpur and surrounding areas. *International Journal of Climatology*, **44**, 4886-4906. <https://doi.org/10.1002/joc.8614>
- Syed Mahbar, S. F. and Kusaka, H. (2024b): Urbanisation increases cloudiness over Greater Kuala Lumpur during southwest and northeast monsoons. *Weather*, **80**, 144-151. <https://doi.org/10.1002/wea.7644>
- Takane, Y., Kikegawa, Y., Nakajima, K. and Kusaka, H. (2024): SLUCM+BEM (v1.0): A simple parameterisation for dynamic anthropogenic heat and electricity consumption in WRF-Urban (v4.3.2). *Geoscientific Model Development*, **17**(23), 8639-8664. <https://doi.org/10.5194/gmd-17-8639-2024>
- Xue, L., Doan, Q. V., Kusaka, H., He, C. and Chen, F. (2024): Insights into urban heat island and heat waves synergies revealed by a land-surface-physics-based downscaling method. *Journal of Geophysical Research: Atmospheres*, **129**, e2023JD040531. <https://doi.org/10.1029/2023JD040531>
- Xue, L., Doan, Q. V., Kusaka, H., He, C. and Chen, F. (2025): Land-surface-physics-based downscaling versus conventional dynamical downscaling for high-resolution urban climate change information: The case study of two cities. *Urban Climate*, **59**, 102228. <https://doi.org/10.1016/j.uclim.2024.102228>
- Zhang, H. and Matsushita, B. (2024): Improving building segmentation accuracy by satellite image standardization. *Proceedings of the Autumn Conference of Japan Society of Photogrammetry and Remote Sensing, November 14-15, Matsuyama, Japan*.

[d] Hydrologic Sciences

- Jafarpour, Kong, K. L., Anuar, A. N., Yuzir, A. M., Ros, F. C., Said, N. F. and Asanuma, J. (2025): Assessing the Impact of an Earthquake on Water Quality Parameters: A Hybrid Satellite-Based and Ground Evaluation of Environmental Quality and Stability. *Frontiers in Water and Environment*, **8**(1), 1-29.
- Kaihotsu, I., Aida, K., Asanuma, J., Oyunbaatar, D. and Hirose, N. (2024): Long-term Evaluation of the AMSR2 L2 Soil Moisture Product of JAXA during 2012-2021 in Mongolia. *Journal of Japan Society of Hydrology and Water Resources*, **37**(3), 249-255. <https://doi.org/10.3178/jjshwr.37.1827>
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- Sugita, M. (2025): Gap-filling lake surface temperatures from Advanced Himawari Imager (AHI) by a data-driven approach. *Hydrological Research Letters*, **19**, 107-111. <https://doi.org/10.3178/hrl.24-00027>
- Sugita, M., Isaka, S., Yamamoto, K., and Baoyinchaogela (2025): Connecting a lake and its upstream watersheds: a joint water balance approach. *Hydrological Sciences Journal*, **70**, 1341-1364. <https://doi.org/10.1080/02626667.2025.2481166>
- Sugita, M. (2024): Hydrology, 2nd edition. Kyoritu Shuppan, 555p. (Translated from Brutsaert, W. (2023): Hydrology, An Introduction, 2nd edition, Cambridge University Press, 609p.)
- Ueyama, M., Takao, Y., Yazawa, H., Tanaka, M., Yabuki, H., Kumagai, T., Iwata, H., Awal, Md. A., Du, M., Harazono, Y., Hata, Y., Hirano, T., Hiura, T., Ide, R., Ishida, S.,

- Ishikawa, M., Kitamura, K., Kominami, Y., Komiya, S., Kotani, A., Inoue, Y., Machimura, T., Matsumoto, K., Matsuura, Y., Mizoguchi, Y., Murayama, S., Nagano, H., Nakai, T., Nakaji, T., Nakaya, K., Ohkubo, S., Ohta, T., Ono, K., Saitoh, T. M., Sakabe, A., Shimizu, T., Shimoda, S., Sugita, M., Takagi, K., Takahashi, Y., Takamura, N., Takanashi, S., Takimoto, T., Yasuda, Y., Wang, Q., Asanuma, J., Hasegawa, H., Hiyama, T., Iijima, Y., Ishidoya, S., Itoh, M., Kato, T., Kondo, H., Kosugi, Y., Kume, T., Maeda, T., Matsuura, S., Maximov, T., Miyama, T., Moriwaki, R., Muraoka, H., Petrov, R., Suzuki, J., Taniguchi, S. and Ichii, K. (2025): The JapanFlux2024 dataset for eddy covariance observations covering Japan and East Asia from 1990 to 2023. *Earth System Science Data*, **17**, 3807-3833. <https://doi.org/10.5194/essd-17-3807-2025>
- Yamanaka, T. and Adachi, I. (2024): Hot springs reflect the flooding of slab-derived water as a trigger of earthquakes. *Communications Earth & Environment*, **5**, 459. <https://doi:10.1038/s43247-024-01606-1>.
- Yamanaka, T. (2024): Groundwater tracer: Hydrogen and oxygen isotopes. *Journal of Japanese Association of Groundwater Hydrology*, **66**(2), 125-133. (J) <https://doi.org/10.5917/jagh.66.125>
- [e] Atmospheric Science**
- Bui-Minh, T., Doan, Q.-V., Nguyen, K.-C., Phan-Van, T., Trinh-Tuan, L., Cong, T. and Trinh-Minh, N. (2024): Determining the onset of summer rainfall over Vietnam using self-organizing maps. *Climate Dynamics*, **62**, 9189-9206. <https://doi.org/10.1007/s00382-024-07385-x>
- Bui-Minh, T., Nguyen, K.-C., Doan, Q.-V., Phan-Van, T., Cong, T. and Trinh-Minh, N. (2024): An application of cluster analysis in investigating characteristics of the South and Southeast Asian monsoon onset in ENSO years. *Scientific Online Letters on the Atmosphere (SOLA)*, **20**, 386-391. <https://doi.org/10.2151/sola.2024-051>
- Kuramochi, M., Ueda, H., Honda, M., Takaya, K. and Inoue, T. (2024): Dawn of subtropical climate dynamics: Co-amplification in tropical and extratropical atmospheric fluctuations caused heavy rainfall over Japan in August 2021. *Report of the FY2023 Workshop on 'Abnormal Weather and Long-Term Variability'*, 151-156. (J)
- Kuwano-Yoshida, A., Takemura, K., Yamazaki, A., Nakamura, H., Kamae, Y. and Okajima, S. (2025): Synoptic-scale phenomena (The present status and future prospects of meteorological research in Japan, 2024). *Tenki*, **72**, 32-33. (J)
- Langendijk, G. S., Halenka, T., Hoffmann, P., Adinolfi, M., Aldama Campino, A., Asselin, O., Bastin, S., Bechtel, B., Belda, M., Bushenkova, A., Campanale, A., Chun, K. P., Constantinidou, K., Coppola, E., Demuzere, M., Doan, Q.-V., Evans, J., Feldmann, H., Fernandez, J., Fita, L., Hadjinicolaou, P., Hamdi, R., Hundhausen, M., Grawe, D., Johannsen, F., Milovac, J., Katragkou, E., Kerroumi, N. E. I., Kotlarski, S., Le Roy, B., Lemonsu, A., Lennard, C., Lipson, M., Mandal, S., Muñoz Pabón, L. E., Pavlidis, V., Pietikäinen, J.-P., Raffa, M., Raluy-López, E., Rechid, D., Ito, R., Schulz, J.-P., Soares, P. M. M., Takane, Y., Teichmann, C., Thatcher, M., Top, S., Van Schaeybroeck, B., Wang, F. and Yuan, J. (2024): Towards better understanding the urban environment and its interactions with regional climate change - The WCRP CORDEX Flagship Pilot Study URB-RCC. *Urban Climate*, **58**, 102165. <https://doi.org/10.1016/j.uclim.2024.102165>
- Luong, T. M., Dasari, H. P., Doan, Q.-V., Alduwais, A. K. and Hoteit, I. (2024): Organized

- precipitation and associated large-scale circulation patterns over the Kingdom of Saudi Arabia. *International Journal of Climatology*, **44**, 3295-3314. <https://doi.org/10.1002/joc.8524>
- Matsushita, T., Harada, M., Ueda, H., Nakagawa, T., Kubota, Y., Suzuki, Y. and Kamae, Y. (2024): Contrasting responses of summer precipitation to orbital forcing in Japan and China over the past 450 kyr. *Climate of the Past*, **20**, 2017-2029. <https://doi.org/10.5194/cp-20-2017-2024>
- Nakanishi, R., Kuramochi, M. and Ueda, H. (2025): Summertime convection jump over the subtropical western North Pacific and its relation to Rossby wave breaking near the Asian jet exit region. *Journal of the Meteorological Society of Japan*, **103**, 5-15. <https://doi.org/10.2151/jmsj.2025-001>
- Nguyen, T. H., Doan, Q.-V., Khan, A., Derdouri, A., Anand, P. and Niyogi, D. (2024): The potential of agricultural and livestock wastes as a source of biogas in Vietnam: Energetic, economic and environmental evaluation. *Renewable and Sustainable Energy Reviews*, **199**, 114440. <https://doi.org/10.1016/j.rser.2024.114440>
- Obinata, S., Kuramochi, M. and Ueda, H. (2024): On the diversity of Silk Road pattern at the intraseasonal timescale and its impact on Japan. *Report of the FY2023 Workshop on 'Abnormal Weather and Long-Term Variability'*, 1-6. (J)
- Okajima, S., Nakamura, H. and Kaspi, Y. (2024): Reply to comment by Chang on "Anticyclonic suppression of the North Pacific transient eddy activity in midwinter". *Geophysical Research Letters*, **51**, e2024GL111599. <https://doi.org/10.1029/2024GL111599>
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- Phung, D., Colón-González, F. J., Weinberger, D. M., Bui, V., Nghiem, S., Chu, C., Phung, H., Sinh Vu, N., Doan, Q.-V., Hashizume, M., Lau, C. L., Reid, S., Phan, L. T., Tran, D. N., Pham C. T., Do, K. Q. and Dubrow, R. (2025). Advancing adoptability and sustainability of digital prediction tools for climate-sensitive infectious disease prevention and control. *Nature Communications*, **16**, 1644. <https://doi.org/10.1038/s41467-025-56826-6>
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- Sekizawa, S., Okajima, S., Miyamoto, A., Miyasaka, T., Kawai, H., Koike, M. and Nakamura, H. (2025): Summer low clouds off southeast of Hokkaido simulated in the Japan Meteorological Agency Meso-scale model under different synoptic conditions. *Scientific Online Letters on the Atmosphere (SOLA)*, **21**, 24-33. <https://doi.org/10.2151/sola.2025-004>
- Xue, L., Doan, Q.-V., Kusaka, H., He, C. and Chen, F. (2024): Insights into urban heat island and heat waves synergies revealed by a Land-Surface-Physics-Based Downscaling method. *Journal of Geophysical Research: Atmospheres*, **129**, e2023JD040531. <https://doi.org/10.1029/2023JD040531>
- Xue, L., Doan, Q.-V., Kusaka, H., He, C. and Chen, F. (2025). Land-surface-physics-based downscaling versus conventional dynamical downscaling for high-resolution urban climate change information: The case study of two cities. *Urban Climate*, **59**, 102228. <https://doi.org/10.1016/j.uclim.2024.102228>

[f] Geomorphology

Yamaguchi, N., Matsuhisa, Y., Sekiguchi, T., Wu, X. and Dorrell, R.M. (2024): Threshold for oscillatory-flow ripple initiation on cohesive and non-cohesive mixtures of sand and mud. *Coastal Engineering Journal*, **67**, 136–145. <https://doi.org/10.1080/21664250.2024.2435711>

[g] Environmental Dynamics

Hirose, K., Onda, Y., Tsukada, H., Hiroshima, Y., Okada, Y., Kikawada, Y., (2024): Chemical implication of the partition coefficient of ^{137}Cs between the suspended and dissolved phases in natural water. *Journal of Environmental Radioactivity*, **278**, 107486. <https://doi.org/10.1016/j.jenvrad.2024.107486>

Hu, J., Kotsuki, S., Igarashi, Y., Yang, Z., Talerko, M., Tischenko, O., Protsak, V. and Kirieiev, S. (2024): A tuning-free moderate-scale burned area detection algorithm — a case study in Chernobyl-contaminated region. *International Journal of Remote Sensing*, **45**(7), 2444–2461. <https://doi.org/10.1080/01431161.2024.2331976>

Igarashi, Y., Protsak, V., Laptev, G., Maloshtan, I., Samoilov, D., Kirieiev, S., Onda, Y. and Konoplev, A. (2024): Effects of large-scale wildfires on the redistribution of radionuclides in the Chernobyl River System. *Environmental Science & Technology*, **58**(46), 20630–20641. <https://doi.org/10.1021/acs.est.4c07019>

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Konoplev, A., Kurosawa, H., Wakiyama, Y., Igarashi, Y., Kanivets, V. and Nanba, K. (2025): Experimental field study of basic mechanisms underlying dissolved ^{137}Cs seasonal variations in ponds heavily contaminated after the Fukushima Daiichi Nuclear Power Plant accident. *Applied Geochemistry*, **178**, 106250. <https://doi.org/10.1016/j.apgeochem.2024.106250>

Takahashi, J., Iguchi, S., Sasaki, T. and Onda, Y. (2024): Downward migration of ^{137}Cs promotes self-cleaning of forest ecosystem by reducing root uptake of Japanese cedar in Fukushima. *Sci. Total Environ.*, **945**, 174010. <https://doi.org/10.1016/j.scitotenv.2024.174010>

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Tanaka, T., Fukuoka, M., Toda, K., Nakanishi, T., Terashima, M., Fujiwara, K., Niwano, Y., Kato, H., Kobayashi, N. I., Tanoi, K. and Saito, T. (2024): Application of diffusive gradients in thin films (DGT) for the dynamic speciation of radioactive cesium in Fukushima Prefecture, Japan. *Environmental Science & Technology Water*, **4**(8), 3579–3586. <https://doi.org/10.1021/acsestwater.4c00453>

Tsumune, D., Tsubono, T. and Misumi, K. (2024): Improving the estimation of direct release rates and transport processes from the Fukushima Daiichi Nuclear Power Plant accident using higher-resolution oceanic dispersion model. *Journal of*

Environmental Radioactivity, **278**, 107500.
<https://doi.org/10.1016/j.jenvrad.2024.107500>

- Zhang, Y., Tan, Y., Chiu, C., You, H., Onda, Y. and Gomi, T. (2025): An individual tree stemflow model integrating branch-leaf cluster structure and drainage processes from multi-platform LiDAR scanning. *Journal of Hydrology*, **654**, 132838.
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[Symbols]

J in Japanese

JE in Japanese with English abstract