Curriculum Vitae

NANKO Kazuki

Affiliation

Senior Researcher

Department of Disaster Prevention, Meteorology and Hydrology
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- Google Scholar Citations http://scholar.google.com/citations?user=_xlV3-wAAAAJ
- ResearchGate https://www.researchgate.net/profile/Kazuki_Nanko

Education

Ph.D. Agriculture. Graduate School of Agricultural and Life Sciences, the University of Tokyo. 2007.
Dissertation: *Studies on the process of throughfall drop generation in forest canopies.*

M.A. Agriculture. Graduate School of Agricultural and Life Sciences, the University of Tokyo. 2004.
Thesis: *Evaluating and modeling of the influence of canopy species and meteorological factors on throughfall drop size distribution* [in Japanese]

B.S. Agriculture. Faculty of Agriculture, the University of Tokyo. 2002.
Thesis: *Assessment of raindrop impact energy under Japanese cypress plantation using laser drop-sizing gauge* [in Japanese]

Employment and Appointments

2016.04–pres. **Senior Researcher**
Department of Disaster Prevention, Meteorology and Hydrology
Forestry and Forest Products Research Institute, Japan

2018.06–2019.02 **Visiting Scholar** (as JSPS Scientist for Joint International Research)
Department of Geography
University of Delaware, USA

2014.04–2016.03 **Senior Researcher**
Department of Meteorological Environment
Forestry and Forest Products Research Institute, Japan

2013.10–2014.03 **Research Associate**
Department of Meteorological Environment
Forestry and Forest Products Research Institute, Japan

2011.08–2013.09 **Postdoctoral Research Fellow**
Department of Forest Site Environment
Forestry and Forest Products Research Institute, Japan

2011.04–2011.07 **JSPS Postdoctoral Research Fellow**
Department of Agriculture
Tokyo University of Agriculture and Technology, Japan

2010.09–2011.03 **Postdoctoral Research Fellow**
Department of Forest Site Environment
Forestry and Forest Products Research Institute, Japan

2009.11–2010.08 **Postdoctoral Research Fellow**
Graduate School of Life and Environmental Sciences
University of Tsukuba, Japan

2008.09–2009.08 **Postdoctoral Research Associate**
Department of Geological Sciences
University of South Carolina, USA

2007.04–2008.08 **Postdoctoral Research Fellow**
Graduate School of Life and Environmental Sciences
University of Tsukuba, Japan

2005.04–2007.03 **JPSP Research Fellow**
Graduate School of Agricultural and Life Sciences
the University of Tokyo, Japan

Awards

As Principal

2019 **Award of President of Agriculture, Forestry and Fisheries Research Council** in the 2019 (15th) Award for Young Agricultural Researchers
Title: *Studies on rain and sediment dynamics in forests due to difference in forest types* (in Japanese)

2016 **Young Investigator Award** of the Japanese Forest Society
Title: *Physical interpretation of the difference in drop size distributions of leaf drips among tree species*

2004 **Best Poster Award** in the 2004 IUFRO Forest Hydrology Workshop, Kota Kinabalu, Malaysia.
Title: *The influence of forest species and atmospheric phenomena on the throughfall raindrop size distribution*

2002 **Award of President of the Japan Science and Technology Association (JAFTA)** in the 13th Student Research Papers on Forestry Technology Competition.
Title: *Assessment of raindrop impact energy under Japanese cypress plantation using laser drop-sizing gauge* (in Japanese)

As Secondary

2017 **Best Poster Award** in the Annual Meetings of Japanese Society of Soil Science and Plant Nutrition
Title: *Yamashita, N., Hashimoto, S., Nanko, K., Osone, Y., Ugawa, S., Ishizuka, S., Tanaka, N., Imaya, A., Kaneko, S. and Miura, S. Mapping of forest soil carbon in allover Japan utilizing National Forest Soil Carbon Inventory: spatial estimation by regression kriging* (in Japanese)

2014 **Best Poster Award** in the 20th World Congress of Soil Science
Title: *Kaneko, S., Miura, S., Ugawa, S., Nanko, K., Tanaka, N., Osone, Y. and Takahashi, M. Carbon stock of dead wood, litter and mineral soil in the forest of Japan.*

2007 **Excellent Presentation Award for Young Researchers** in the Annual Meeting of Japan

Society of Erosion Control Engineering
Title: *Mizugaki, S., Gomi, T., Onda, Y., Asai, H., Nanko, K., Asano, Y., Nagamine, M. and Hiramatsu, S. Process of surface erosion and sediment discharge into stream in Japanese cypress plantation* (in Japanese)

Research Interests

Interests I am interested in the cross-cutting science at interface of meteorology (wind, rainfall, snow, etc.), forestry, and soil science from ecohydrological and geomorphological perspectives. Specific interest is raindrops, rainfall partitioning by forest canopy, tree sway and breakage mechanism by fluid (wind, avalanche, and tsunami), and soil erosion in mountainous forest area.

Fields Ecohydrology
Hydrogeomorphology
Tree Biomechanics (and Ecomechanics)

Keywords raindrop, drop size distribution (DSD), rainfall erosivity;
canopy interception, throughfall, stemflow;
tree sway, tree breakage, wind damage;
splash erosion, soil erosion;
laser disdrometer, LDG (laser drop-sizing gauge)

Research Achievements Summary

Number of research grants	7 (PI), 7 (Co-PI), 2 (Host of invitation fellowship)
Total direct allocation of the grants	¥42,841,000
Number of peer-reviewed articles	[*WoS*] 40; [total] 53
Total times cited	[*WoS*] 809; [*Google Scholar*] 1,317
H-index	[*WoS*] 17; [*Google Scholar*] 20

** Updated on July 28, 2020*

Research Grants

As PI

2018–20 Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (B), 18H02249. *Development of dynamic model of coastal geomorphology and coastal forest canopy based on the clarification of wind-driven environmental stress*.
¥17,550,000 (total), ¥4,700,000 (direct allocation)

2018–20 Japan Society for the Promotion of Science, Fund for the Promotion of Joint International Research (Fostering Joint International Research), 17KK0159. *How does rain journey through the vertical structures of tree canopy? Development of physical model using chemical analysis.*
¥13,260,000 (total), ¥10,200,000 (direct allocation)

2015–17 Japan Society for the Promotion of Science, Grant-in-Aid for Young Scientists (A), 15H05626. *3D physical simulation on tree wetting and drying processes through multipoint raindrop measurements.*
¥20,670,000 (total), ¥15,900,000 (direct allocation)

2014–15 Forestry and Forest Products Research Institute, Research Grant, 201412. *Simulation*

of buffering function and breakage dynamics of a tree against wind/tsunami by the particle method.
¥4,000,000 (total and direct allocation)

2011 Japan Society for the Promotion of Science, Grant-in-Aid for JSPS Fellows, 11J07538. *Estimation of rainfall re-distribution by forest canopy on hillslope*.
¥800,000 (total and direct allocation)

2007 Japan Society of Erosion Control Engineering, Grant for Young Scientists. *Understanding spatial distribution of soil erosion in forest watershed with bared soil surface*.
¥200,000 (total and direct allocation)

2005–06 Japan Society for the Promotion of Science, Grant-in-Aid for JSPS Fellows, 05J11212. *Clarification of throughfall drop generation process and assessment of surface erosion in forest.*
¥1,900,000 (total and direct allocation)

As Host of Invitation Fellowship

2020 Japan Society for the Promotion of Science, Invitation Fellowship for Research in Japan (Long-term), L20538. *The role of wind on rainfall partitioning by forest canopy: wind-driven rain and canopy swaying*
Fellow: Maria Pilar LLORENCE GARCIA, Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Spain

2016 Japan Society for the Promotion of Science, Invitation Fellowship for Research in Japan (Short-term), S16088. *Study on rainfall redistribution by forest canopy using natural and simulated rainfall.*
Fellow: Delphis Francis Levia Jr., University of Delaware, USA

As Co-PI

2020–24 Forestry and Forest Products Research Institute, Research Grant, [id]. *[English title is in preparation]*
PI: Satoru Suzuki, Forestry and Forest Products Research Institute, Japan
¥1,260,000 (total in 2020)

2020–23 Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (B), 20H03024. *[English title is in preparation].*
PI: Kana Kamimura, Shinshu University, Japan
¥17,810,000 (total), ¥1,500,000 (direct allocation in 2020)

2020-22 Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (B), 20H03316. *[English title is in preparation].*
PI: Riichi Oguchi, Tohoku University, Japan
¥18,070,000 (total), ¥770,000 (direct allocation)

2020-22 Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (C), 20K06151. *[English title is in preparation].*
PI: Kenta Iwasaki, Hokkaido Research Organization, Japan
¥4,160,000 (total), ¥900,000 (direct allocation)

2019–20 Consejo Superior de Investigaciones Científicas (CSIC), LINKA20045. *The impacts of forest management and climate change on rainfall partitioning: their effects on soil moisture and groundwater.*
PI: Pilar Llorens, IDAEA-CSIC, Spain
€18,512 (total)

2017–19 Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (C), 17K07836. *Clarifying the dynamic interaction among trees to improve prediction*

accuracy of forest damage by typhoon.
PI: Kana Kamimura, Shinshu University, Japan
¥4,940,000 (total), ¥500,000 (direct allocation)

2016–19 Forestry and Forest Products Research Institute, Research Grant, 201502. *Integrated analysis of forest ecosystem services for regional forest management.*
PI: Yuichi Yamaura, Forestry and Forest Products Research Institute, Japan
¥30,213,000 (total), ¥921,000 (direct allocation)

2016–17 Japan Society for the Promotion of Science, Grant-in-Aid for Challenging Exploratory Research, 16K14937. *Why uneven-aged stands are resistant to wind damage? Integration of canopy dynamics, vibration engineering and wind dynamics*.
PI: Hiromi Mizunaga, Shizuoka University, Japan
¥3,640,000 (total), ¥550,000 (direct allocation)

Publications

Book, as an Editor

1 Levia, D.F., Carlyle-Moses, D.E., Iida, S., Michalzik, B., **Nanko, K.** Tischer, A. 2020. *Forest-Water Interactions*. Ecological Studies, No. 240, Springer Nature, Switzerland AG, 628 p. ISBN: 978-3-030-26085-9 (Print); 978-3-030-26086-6 (eBook), DOI:10.1007/978-3-030-26086-6

Book Chapter, as an Author (without peer-review)

3 **Nanko, K.** 2008. Mechanism and actual condition of splash erosion on forest floor. In: Onda, Y. (Ed.), *Actual condition of degradation of forest plantations and discharge of water and sediment*, Iwanami Shoten, Tokyo: 125-134. [in Japanese]

2 **Nanko, K.** 2008. Change of raindrops in Japanese cypress forest. In: Onda, Y. (Ed.), *Actual condition of degradation of forest plantations and discharge of water and sediment*, Iwanami Shoten, Tokyo: 15-23. [in Japanese]

1 **Nanko, K.** 2008. New understanding: land use and water interactions. In: Calder I.R. (Author) Kuraji, K., Hayashi, Y. (Supervising translation), *Blue revolution*, Tsukiji Shokan, Tokyo: 8-33. [in Japanese]

Peer-reviewed Articles

Accepted / in press / online first

53 **Nanko, K.** (2020) Rainwater dynamics on leaves and branches based on raindrop measurements. *Journal of the Japanese Society of Soil Physics*. [in Japanese with an English summary]
(Accepted on 2020.02.18)

52 Zhu, X., Liu, W., Chen, J., Bruijnzeel, L.A., Mao, Z., Yang, X., Cardinael, R., Meng, F.-R., Sidle, R.C., Seitz, S., Nair, V.D., **Nanko, K.**, Zou, X., Chen, C., Jiang, X.J. (2019) Reductions in water, soil and nutrient losses and pesticide pollution in agroforestry practices: a review of evidence and processes. *Plant and Soil*: DOI:10.1007/s11104-019-04377-3
(Accepted on 2019.11.14, Online First on 2019.11.26)

2020

51 Tucker, A., Levia, D.F., Katul, G.G., **Nanko, K.**, Rossi, L.F. (2020) A network model for stemflow solute transport. *Applied Mathematical Modelling* 88: 266-282. DOI:

10.1016/j.apm.2020.06.047

50 Guswa, A.J., Tetzlaff, D., Selker, J.S., Carlyle-Moses, D.E., Boyer, E.W., Bruen, M., Cayuela, C., Creed, I.F., van de Giesen, N., Grasso, D., Hannah, D.M., Hudson, J.E., Hudson, S.A., Iida, S., Jackson, R.B., Katul, G.G., Kumagai, T., Llorens, P., Lopes Ribeiro, F., Michalzik, B., **Nanko, K.**, Oster, C., Pataki, D.E., Peters, C.A., Rinaldo, A., Sanchez-Carretero, D., Trifunovic, B., Zalewski, M., Haagsma, M., Levia, D.F. (2020) Advancing ecohydrology in the 21st century: a convergence of opportunities. *Ecohydrology* 13: e2208. DOI:10.1002/eco.2208

49 Dezhban, A., Attarod, P., Zahedi Amiri, G., Pypker, T.G., **Nanko, K.** (2020) The variability of stemflow generation in a natural beech stand (*Fagus orientalis* Lipsky) in relation to rainfall and tree traits. *Ecohydrology* 13: e2198. DOI:10.1002/eco.2198

48 Imamura, N., Levia, D.F., **Nanko, K.**, Tanaka, N., Ohte, N. (2020) Geographic factors explain the variability of atmospheric deposition of sulfur and nitrogen onto coniferous forests within and beyond the Tokyo Metropolis. *Water, Air, & Soil Pollution* 231: 105. DOI:10.1007/s11270-020-4467-4

47 **Nanko, K.**, Tanaka, N., Leuchner, M., Levia, D.F. (2020) Throughfall erosivity in relation to drop size and crown position: a case study from a teak plantation in Thailand. In: Levia, D.F., Carlyle-Moses, D.E., Iida, S., Michalzik, B., Nanko, K., & Tischer, A. (Eds.) *Forest-Water Interactions*. Ecological Studies, No. 240, Springer Nature, Switzerland AG: 279-298. DOI:10.1007/978-3-030-26086-6_12

2019

46 Lüpke, M., Leuchner, M., Levia, D.F., **Nanko, K.**, Iida, S., Menzel, A. (2019) Characterization of differential throughfall drop size distributions beneath European beech and Norway spruce. *Hydrological Processes* 33: 3391-3406. DOI:10.1002/hyp.13565

45 Dezhban, A., Attarod, P., Zahedi Amiri, G., Pypker, T.G., **Nanko, K.** (2019) Spatial and temporal variability of throughfall under a natural *Fagus orientalis* stand in the Hyrcanian Forests, North of Iran. *Journal of Agricultural Science and Technology* 21: 1843-1858.

44 Dezhban, A., Attarod, P., Zahedi Amiri, G., Pypker, T.G., **Nanko, K.** (2019) Fog precipitation and rainfall interception in a pure natural oriental beech (*Fagus orientalis* L.) stand in the Hyrcanian Forests, North of Iran. *Journal of Forest and Wood Products* 72: 89-100. DOI:10.22059/jfwp.2019.267717.970 [in Persian with English Summary]

43 Levia, D.F.*, **Nanko, K.*** (*Co-first authors), Amasaki, H., Giambelluca, T.W., Hotta, N., Iida, S., Mudd, R.G., Nullet, M.A., Sakai, N., Shinohara, Y., Sun, X., Suzuki, M., Tanaka, N., Tantasirin, C., Yamada, K. (2019) Throughfall partitioning by trees. *Hydrological Processes* 33: 1698-1708. DOI:10.1002/hyp.13432

42 Dezhban, A., Attarod, P., Zahedi Amiri, G., Pypker, T.G., **Nanko, K.** (2019) Seasonal variability of throughfall spatial pattern under a natural *Fagus orientalis* stand using geostatistical method. *Iranian Journal of Forest* 11: 13-28. [in Persian with English Summary]

41 **Nanko, K.**, Suzuki, S., Noguchi, H., Ishida, Y., Levia, D.F., Ogura, A., Hagino, H., Matsumoto, H., Takimoto, H., Sakamoto, T. (2019) Mechanical properties of Japanese black pine (*Pinus thunbergii* Parl.) planted on coastal sand dunes: resistance to uprooting and stem breakage by tsunamis. *Wood Science and Technology* 53: 469-489. DOI:10.1007/s00226-019-01075-z

40 Shinohara, Y., Misumi, Y., Kubota, T., **Nanko, K.** (2019) Characteristics of soil erosion in a moso-bamboo forest of western Japan: Comparison with a broadleaved forest and a coniferous forest. *Catena* 172: 451-460. DOI:10.1016/j.catena.2018.09.011

39 Boulange, J., Malhat, F., Jaikaew, P., **Nanko, K.**, Watanabe, H. (2019) Portable rainfall simulator for plot-scale investigation of rainfall-runoff, and transport of sediment and pollutants. *International Journal of Sediment Research* 34: 38-47. DOI:10.1016/j.ijsrc.2018.08.003

2018

38 Shinohara, Y., Ichinose, K., Morimoto, M., Kubota, T., **Nanko, K.** (2018) Factors influencing the erosivity indices of raindrops in Japanese cypress plantations. *Catena* 171: 54-61. DOI:10.1016/j.catena.2018.06.030

37 Carlyle-Moses, D.E., Iida, S., Germer, S., Llorens, P., Michalzik, B., **Nanko, K.**, Tischer, A., Levia, D.F. (2018) Expressing stemflow commensurate with its ecohydrological importance. *Advances in Water Resources* 121: 472-479. DOI:10.1016/j.advwatres.2018.08.015

36 Nagano, R., **Nanko, K.**, Sogo, K., Sugimoto, H. (2018) Evaluation of canopy rainfall interception by three broad-leaved species in urban area. *Journal of the Japanese Society of Revegetation Technology* 44: 81–86. DOI:10.7211/jjsrt.44.81 [in Japanese with an English summary]

35 Iida, S., Levia, D.F., **Nanko, K.**, Sun, X, Shimizu, T., Tamai, K., Shinohara, Y. (2018) Correction of canopy interception loss measurements in temperate forests: a comparison of necessary adjustments among three different rain gauges based on a dynamic calibration procedure. *Journal of Hydrometeorology* 19: 547-553. DOI:10.1175/JHM-D-17-0124.1

2017

34 Imamura, N., Levia, D.F., Toriyama, J., Kobayashi, M., **Nanko, K.** (2017) Stemflow-induced spatial heterogeneity of radiocesium concentrations and stocks in the soil of a broadleaved deciduous forest. *Science of the Total Environment* 599–600: 1013–1021. DOI:10.1016/j.scitotenv.2017.05.017

33 **Nanko, K.**, Hashimoto, S., Miura, S., Ishizuka, S., Sakai, Y., Levia, D.F., Ugawa, S., Nishizono, T., Kitahara, F., Osone, Y., Kaneko, S. (2017) Assessment of soil group, site and climatic effects on soil organic carbon stocks of topsoil in Japanese forests. *European Journal of Soil Science* 68: 547–558. DOI:10.1111/ejss.12444

32 Levia, D.F., Hudson, S.A., Llorens, P., **Nanko, K.** (2017) Throughfall drop size distributions: a review and prospectus for future research. *Wiley Interdisciplinary Reviews: Water* 4: e1225. DOI:10.1002/wat2.1225

31 Hashimoto, S., **Nanko, K.**, Ťupek, B., Lehtonen, A. (2017) Data-mining analysis of the global distribution of soil carbon in observational databases and Earth system models. *Geoscientific Model Development* 10: 1321–1337. DOI:10.5194/gmd-10-1321-2017

2016

30 Tanaka, N., Levia, D.F., Igarashi, Y., Yoshifuji, N., Tanaka, K., Tantasirin, C., **Nanko, K.**, Suzuki, M., Kumagai, T. (2017) What factors are most influential in governing stemflow production from plantation-grown teak trees? *Journal of Hydrology* 544: 10–20. DOI:10.1016/j.jhydrol.2016.11.010

29 Shinohara, Y., Otani, S., Kubota, T., Otsuki, K., **Nanko, K.** (2016) Effects of plant roots on the soil erosion rate under simulated rainfall with high kinetic energy. *Hydrological Sciences Journal* 61: 2435–2442. DOI:10.1080/02626667.2015.1112904

28 Weber, Y., Jolivet, V., Gilet, G., **Nanko, K.**, Ghazanfarpour, D. (2016) A phenomenological model for throughfall rendering in real-time. *Computer Graphics Forum* 35: 13–23. DOI:10.1111/cgf.12945

27 **Nanko, K.**, Onda, Y., Kato, H., Gomi, T. (2016) Immediate change in throughfall spatial distribution and canopy water balance after heavy thinning in a dense mature Japanese cypress plantation. *Ecohydrology* 9: 300–314. DOI:10.1002/eco.1636

26 **Nanko, K.**, Moskalski, S.M., Torres, R. (2016) Rainfall erosivity–intensity relationships for normal rainfall events and a tropical cyclone on the US southeast coast. *Journal of Hydrology* 534: 440–450. DOI:10.1016/j.jhydrol.2016.01.022

25 **Nanko, K.**, Hudson, S.A., Levia, D.F. (2016) Differences in throughfall drop size

distributions in the presence and absence of foliage. *Hydrological Sciences Journal* 61: 620–627. DOI:10.1080/02626667.2015.1052454

2015

24 Tanaka, N., Levia, D.F., Igarashi, Y., **Nanko, K.**, Yoshifuji, N., Tanaka, K., Tantasirin, C., Suzuki, M., Kumagai, T. (2015) Throughfall under a teak plantation in Thailand: a multifactorial analysis on the effects of canopy phenology and meteorological conditions. *International Journal of Biometeorology* 59: 1145–1156. DOI:10.1007/s00484-014-0926-1

23 Thai, P.K., Suka, Y., Sakai, M., **Nanko, K.**, Yen, J.-H., Watanabe, H. (2015) Export of radioactive cesium from agricultural fields under simulated rainfall in Fukushima. *Environmental Science: Processes & Impacts* 17: 1157–1163. DOI:10.1039/c5em00063g

22 **Nanko, K.**, Giambelluca, T.W., Sutherland R.A., Mudd, R.G., Nullet, M.A., Ziegler, A.D. (2015) Erosion potential under *Miconia calvescens* stands on the Island of Hawai ʻi. *Land Degradation & Development* 26: 218–226. DOI:10.1002/ldr.2200

2014

21 Noguchi, H., Suzuki, S., **Nanko, K.**, Takeuchi, Y., Kaneko, T., Nitta, K., Watanabe, K., Sakamoto, T. (2014) Evaluation of lodging resistance characteristics of broad-leaved tree and *Pinus thunbergii* planted in coastal sand dunes using tree-pulling experiments. *Journal of the Japanese Society of Coastal Forest* 13: 59–66. [in Japanese with an English summary]

20 **Nanko, K.**, Ugawa, S., Hashimoto, S., Imaya, A., Kobayashi, M., Sakai, H., Ishizuka, S., Miura, S., Tanaka, N., Takahashi, M., Kaneko, S. (2014) A pedotransfer function for estimating bulk density of forest soil in Japan affected by volcanic ash. *Geoderma* 213: 36–45. DOI:10.1016/j.geoderma.2013.07.025

2013

19 Kato, H., Onda, Y., **Nanko, K.**, Gomi, T., Yamanaka, T., Kawaguchi, S. (2013) Effect of canopy interception on spatial variability and isotopic composition of throughfall in Japanese cypress plantations. *Journal of Hydrology* 504: 1–11. DOI:10.1016/j.jhydrol.2013.09.028

18 Hashimoto, S., Matsuura, T., **Nanko, K.**, Linkov, I., Shaw, G., Kaneko, S. (2013) Predicted spatio-temporal dynamics of radiocesium deposited onto forests following the Fukushima nuclear accident. *Scientific Reports* 3: 2564. DOI:10.1038/srep02564

17 **Nanko, K.** (2013) Relationship between throughfall kinetic energy and tree height, crown bottom height, and crown length for Japanese cypress plantation. *Journal of the Japanese Forest Society* 95: 234–239. DOI:10.4005/jjfs.95.234 [in Japanese with an English summary]

16 **Nanko, K.**, Watanabe, A., Hotta, N., Suzuki, M. (2013) Physical interpretation of the difference in drop size distributions of leaf drips among tree species. *Agricultural and Forest Meteorology* 169: 74–84. DOI:10.1016/j.agrformet.2012.09.018

2012

15 Ugawa, S., Takahashi, M., Morisada, K., Takeuchi, M., Matsuura, Y., Yoshinaga, S., Araki, M., Tanaka, N., Ikeda, S., Miura, S., Ishizuka, S., Kobayashi, M., Inagaki, M., Imaya, A., **Nanko, K.**, Hashimoto, S., Aizawa, S., Hirai, K., Okamoto, T., Mizoguchi, T., Torii, A., Sakai, H., Ohnuki, Y., Kaneko, S. (2012) Carbon stocks of dead wood, litter, and soil in the forest sector of Japan: general description of the National Forest Soil Carbon Inventory. *Bulletin of the Forestry and Forest Products Research Institute* 11: 207–221.

14 Sato, K., Ueno, K., **Nanko, K.**, Shimizu, S. (2012) Rainfall tendency in winter Sugadairakogen Highlands, Nagano Prefecture. *Journal of Japan Society of Hydrology and Water Resources* 25: 271–289. DOI:10.3178/jjshwr.25.271 [in Japanese with an English summary]

13 Hashimoto, S., Ugawa, S., **Nanko, K.**, Shichi, K. (2012) The total amounts of radioactively

contaminated materials in forests in Fukushima, Japan. *Scientific Reports* 2: 416. DOI:10.1038/srep00416

2011

12 **Nanko, K.**, Onda, Y., Ito, A., Moriwaki, H. (2011) Spatial variability of throughfall under a single tree: Experimental study of rainfall amount, raindrops, and kinetic energy. *Agricultural and Forest Meteorology* 151: 1173–1182. DOI:10.1016/j.agrformet.2011.04.006

2010

11 **Nanko, K.**, Onda, Y., Fukada, K., Nonoda, T., Yamamoto, K., Takenaka, C., Hiraoka, M. (2010) Estimating the economic effect of heavy thinning on the water resource storage function of dense Japanese cypress plantations. *Journal of Japan Society of Hydrology and Water Resources* 23: 437–443. DOI:10.3178/jjshwr.23.437 [in Japanese with an English summary]

10 Wakiyama, Y., Onda, Y., **Nanko, K.**, Mizugaki, S., Kim, Y., Kitahara, H., Ono, H. (2010) Estimation of temporal variation in splash detachment in two Japanese cypress plantations of contrasting age. *Earth Surface Processes and Landforms* 35: 993–1005. DOI:10.1002/esp.1844

9 Hiraoka, M., Onda, Y., Kato, H., Mizugaki, S., Gomi, T., **Nanko, K.** (2010) Effects of understory vegetation on infiltration capacity in Japanese cypress plantation. *Journal of the Japanese Forest Society* 92: 145–150. DOI:10.4005/jjfs.92.145 [in Japanese with an English summary]

8 Mizugaki, S., **Nanko, K.**, Onda, Y. (2010) The effect of slope angle on splash detachment in an unmanaged Japanese cypress plantation forest. *Hydrological Processes* 24: 576–587. DOI:10.1002/hyp.7552

7 **Nanko, K.**, Onda, Y., Ito, A., Ito, S., Mizugaki, S., Moriwaki, H. (2010) Variability of surface runoff generation and infiltration rate under a tree canopy: indoor rainfall experiment using Japanese cypress (*Chamaecyparis obtusa*). *Hydrological Processes* 24: 567–575. DOI:10.1002/hyp.7551

2008

6 Kato, H., Onda, Y., Ito, S., **Nanko, K.** (2008) Field measurement of infiltration rate using an oscillating nozzle rainfall simulator in devastated hinoki plantation. *Journal of Japan Society of Hydrology and Water Resources* 21: 439–448. DOI:10.3178/jjshwr.21.439 [in Japanese with an English summary]

5 Ito, A., Onda, Y., **Nanko, K.**, Fukuyama, T., Moriwaki, H. (2008) Experimental study on spatial distribution of throughfall under a Japanese cypress tree. *Journal of Japan Society of Hydrology and Water Resources* 21: 273–284. DOI:10.3178/jjshwr.21.273 [in Japanese with an English summary]

4 **Nanko, K.**, Onda, Y., Ito A., Moriwaki, H. (2008) Effect of canopy thickness and canopy saturation on the amount and kinetic energy of throughfall: An experimental approach. *Geophysical Research Letters* 35: L05401. DOI:10.1029/2007GL033010

3 **Nanko, K.**, Mizugaki, S., Onda, Y. (2008) Estimation of soil splash detachment rates on the forest floor of an unmanaged Japanese cypress plantation based on field measurements of throughfall drop sizes and velocities. *Catena* 72: 348–361. DOI:10.1016/j.catena.2007.07.002

2006

2 **Nanko, K.**, Hotta, N., Suzuki, M. (2006) Evaluating the influence of canopy species and meteorological factors on throughfall drop size distribution. *Journal of Hydrology* 329: 422–431. DOI:10.1016/j.jhydrol.2006.02.036

2004

1 **Nanko, K.**, Hotta, N., Suzuki, M. (2004) Assessing raindrop impact energy at the forest floor in a mature Japanese cypress plantation using continuous raindrop-sizing instruments. *Journal of Forest Research* 9: 157–164. DOI:10.1007/s10310-003-0067-6

Other reports in English

4 **Nanko, K.**, Suzuki, S., Noguchi, H., Hagino, H., Ogura, A., Ishida, Y., Matsumoto, H., Takimoto, H., Sakamoto, T. (2015) Simulation of tree deformation of Japanese black pine caused by temporally varied wind. *The 8th Plant Biomechanics International Conference*: 240.

3 Kaneko, S., Ugawa, S., Miura, S., **Nanko, K.**, Takahashi, M. (2012) Monitoring of organic carbon stocks in Japanese forest soil. *MARCO Symposium 2012, Strengthening Collaboration to meet Agro-Environmental Challenges in Monsoon Asia, Tsukuba, Japan*: 154-158.

2 Giambelluca, T.W., Sutherland, R.A., **Nanko, K.**, Mudd, R., Ziegler, A.D. (2010) Effects of *Miconia* on hydrology: A first approximation. *In Loope, L.L., J.-Y. Meyer, B.D. Hardesty and C.W. Smith (eds.), Proceedings of the International Miconia Conference, Keanae, Maui, Hawai'i, May 4-7, 2009, Maui Invasive Species Committee and Pacific Cooperative Studies Unit, University of Hawai'i at Manoa.* http://www.hear.org/conferences/miconia2009/proceedings/

1 **Nanko, K.**, Hotta, N., Suzuki, M. (2004) The influence of forest species and atmospheric phenomena on the throughfall rainfall size distribution. *In Sidle, R.C., Tani, M., Abdul Rahim, N., Tewodros Ayele, T. (Eds.) Forests and Water in Warm, Humid Asia, Proceedings of IUFRO Forest Hydrology Workshop, Kota Kinabalu, Malaysia*: 81–83.

Presentations

Invited Lectures and Talks

2019.10.26 **Nanko, K.** Rainwater dynamics on leaves and branches based on raindrop measurements. *2019 Annual Meeting, Japanese Society of Soil Physics* (Tsukuba Norin Hall, Tsukuba Business-Academia Cooperation Support Center, Ibaraki, Japan) [in Japanese]

2019.09.03 **Nanko, K.** Lecture on raindrop and disdrometer. *Raindrop and disdrometer workshop* (University of Hawai'i at Mānoa, Honolulu, HI, USA)

2019.05.16 Levia, D.F., **Nanko, K.** Ecohydrology of forest ecosystems: A retrospective reflection and prospectus of future work (or, what we know and where we should go). *Applied Ecology Seminar* (Uniwersytet Łódzki, Łódź, Poland)

2019.04.12 Carlyle-Moses, D.E., Iida, S., Germer, S., Llorens, P., Michalzike, B., **Nanko, K.**, Tischere, A., Levia, D.F. Stand-scale metrics for expressing stemflow commensurate with its ecohydrological importance. *EGU General Assembly 2019* (Austria Center Vienna, Vienna, Austria)

2018.10.16 **Nanko, K.** Study on the journey of rainfall in forest canopies. *FFPRI Public Lectures* (Yakult Hall, Tokyo, Japan) [in Japanese]

2018.04.24 Kamimura, K., **Nanko, K.** Measurement and recording of tree movement. *Tree Motion and Wind Measurement Workshop* (Danish Technical University, Roskilde, Denmark)

2018.03.28 **Nanko, K.** Experience in writing an English academic paper from a graduation thesis written in Japanese. *129th Annual Japanese Forest Society Meeting* (Kochi

University, Kochi, Japan) [in Japanese]

2016.05.10 **Nanko, K.**, Levia, D.F. Relationship between foliage wettability and throughfall drop size. *Plant Trait Workshop, Interdisciplinary German-Japanese Symposium, iJaDe2016* (Technische Universität Dresden, Dresden, Germany)

2016.05.10 **Nanko, K.** Simulation of dynamic tree sway based on physical vibration theory. *Plant Trait Workshop, Interdisciplinary German-Japanese Symposium, iJaDe2016* (Technische Universität Dresden, Dresden, Germany)

2016.03.30 **Nanko, K.** Rainwater path in tree canopy penetrated by raindrops. *Forest Hydrology Workshop* (Nihon University, Kanagawa, Japan) [in Japanese]

2016.03.27 **Nanko, K.** Physical interpretation of the difference in drop size distributions of leaf drips among tree species. *Encouragement Award of the Japanese Forest Society* (Nihon University, Fujisawa, Japan) [in Japanese]

2014.06.08 **Nanko, K.**, Hashimoto, S., Miura, S., Kaneko, S., Levia, D.F., Hudson, S.A. Which factors determine, 1) soil organic carbon stock, and 2) throughfall drop size? Introduction of a recent multifactorial analysis, boosted regression trees (BRT). *173th HyARC seminar* (Nagoya University, Nagoya, Japan)

2013.09.20 **Nanko, K.** Process of Throughfall Raindrop Generation and Its Impact to Forest Ecosystem Services. *Department of Geology Seminar Series* (University of Delaware, Newark, DE, USA)

2013.05.01 **Nanko, K.** Process of throughfall drop generation in forest canopies. Watershed Hydrology and Ecosystem Management Laboratory Seminar (Tokyo University of Agriculture and Technology, Fuchu, Japan)

2013.01.28 **Nanko, K.** Inhomogeneous spatial distributions in forest from the viewpoint of locational conditions: from micro scale of splash erosion to macro scale carbon accumulation. *Forest Sciences Seminar* (Kyushu University, Fukuoka, Japan) [in Japanese]

2007.06.07 **Nanko, K.** Study on throughfall drop generation process in forest canopy. *Department of Forest Site Environment Seminar* (Forestry and Forest Products Research Institute, Tsukuba, Japan) [in Japanese]

Symposium Presentations as the First Author (in English)

2016 – pres.

2019.12.13 **Nanko, K.**, Levia, D.F., Iida, S., Sun, X., Shinohara, Y., Sakai, N. Effect of tree species, leaf states, and rainfall intensity on throughfall generation and throughfall partitioning by use of a large-scale rainfall simulator. *2019 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA), Poster

2019.10.02 **Nanko, K.** Interactions among forest canopy, raindrop, wind, and soil. *Tsukuba Conference 2019* (Tsukuba International Congress Center, Tsukuba, Japan), Poster

2018.12.11 **Nanko, K.**, Carlyle-Moses, D.E., Iida, S., Germer, S., Llorens, P., Michalzike, B., Tischere, A., Levia, D.F. Righting a wrong: Expressing stemflow commensurate with its ecohydrological importance. *2018 AGU Fall Meeting* (Walter E. Washington Convention Center, Washington, D.C., USA), Poster

2018.12.10 **Nanko, K.**, Tanaka, N., Leuchner, M., Levia, D.F. Effect of throughfall type on drop size distribution and soil erosion potential in a teak plantation in northern Thailand. *2018 AGU Fall Meeting* (Walter E. Washington Convention Center, Washington, D.C., USA), Poster

2018.04.13 **Nanko, K.**, Levia, D.F., Iida, S., Sun, X., Shinohara, Y., Sakai, N. Importance of the canopy wet-up phase for throughfall drop generation revealed by use of a large-scale rainfall simulator. *EGU General Assembly 2018* (Austria Center Vienna,

Vienna, Austria), Poster

2018.04.09 **Nanko, K.**, Shinohara, Y., Ichinose, K., Morimoto, M., Kubota, T. Influential factors on erosivity of throughfall drops in Japanese cypress plantations. *EGU General Assembly 2018* (Austria Center Vienna, Vienna, Austria), Oral

2018.04.09 **Nanko, K.**, Katsushima, T., Suzuki, S., Sakamoto, T. Prediction of wind-blown sand transport on different beach throughout Japan. *EGU General Assembly 2018* (Austria Center Vienna, Vienna, Austria), Poster

2017.12.15 **Nanko, K.**, Levia, D.F., Iida, S., Sun, X., Shinohara, Y., Sakai, N. Temporal sequencing of throughfall drop generation as revealed by use of a large-scale rainfall simulator. *2017 AGU Fall Meeting* (Ernest N. Morial Convention Center, New Orleans, LA, USA), Oral

2017.07.20 **Nanko, K.**, Suzuki, S., Katsushima, T., Minamino, R., Kamimura, K., Mizunaga, H. Estimation of tree resistance to wind damage using segmented stem and voxelized canopy from terrestrial laser scanner data. *8th International Conference on Wind and Trees* (National Center for Atmospheric Research, Boulder, CO, USA), Oral

2016.12.16 **Nanko, K.**, Oguro, M., Miura, S., Masaki, T. Prediction of soil erosion rates in Japan where heavily forested landscape with unstable terrain. *2016 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA), Poster

2011 – 2015

2015.12.15 **Nanko, K.**, Suzuki, S., Noguchi, H., Hagino, H. Simulation of Tsunami Resistance of a *Pinus thunbergii* tree in Coastal Forest in Japan. *2015 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA), Poster

2015.12.03 **Nanko, K.**, Suzuki, S., Noguchi, H., Hagino, H., Ogura, A., Ishida, Y., Matsumoto, H., Takimoto, H., Sakamoto, T. Simulation of tree deformation of Japanese black pine caused by temporally varied wind. *8th Plant Biomechanics International Conference* (Nagoya University, Nagoya, Japan), Oral

2014.10.06 **Nanko, K.**, Miura, S., Ugawa, S., Hashimoto, S., Osone, Y., Ishizuka, S., Sakai, Y., Tanaka, N., Takahashi, M., Kaneko, S. Detectable differences in carbon stocks of forest soils in Japan: Boosted regression tree analysis can identify stratifying factors. *IUFRO World Congress 2014* (Salt Palace Convention Center, Salt Lake City, UT, USA), Poster

2013.04.10 **Nanko, K.**, Ugawa, A., Takahashi, M., Morisada, K., Takeuchi, M., Matsuura, Y., Yoshinaga, S., Araki, M., Tanaka, N., Ikeda, S., Miura, S., Ishizuka, S., Kobayashi, M., Inagaki, M., Imaya, A., Hashimoto, A., Kaneko, S., the Inventory Working Group Team Carbon stocks of dead wood, litter, and soil in the forest sector in Japan estimated by the National Forest Soil Carbon Inventory. *EGU General Assembly 2013* (Austria Center Vienna, Vienna, Austria), Poster

2013.04.10 **Nanko, K.**, Onda, Y., Ito, A., Moriwaki, H. Spatial variability of throughfall and raindrops under a single canopy with different canopy structure. *EGU General Assembly 2013* (Austria Center Vienna, Vienna, Austria), Oral

2013.04.10 **Nanko, K.**, Watanabe, A., Hotta, N., Suzuki, M. Linkage between canopy water storage and drop size distributions of leaf drips. *EGU General Assembly 2013* (Austria Center Vienna, Vienna, Austria), Poster

2004 – 2010

2010.06.22 **Nanko, K.**, Onda, Y., Ito, A., Suwa, S., Moriwaki, H., Fukuzono, T. Inference of water behavior in a tree canopy based on the dense measurements of throughfall rate and throughfall raindrops. *2010 Western Pacific Geophysics Meeting* (Taipei International Convention Center, Taipei, Taiwan), Oral

2008.04.16 **Nanko, K.**, Onda, Y., Ito, A., Ito, S., Mizugaki, S., Moriwaki, H. Variability of surface

runoff and infiltration rate under a tree canopy: Indoor rainfall experiment using a stand of Japanese cypress. *EGU General Assembly 2008* (Austria Center Vienna, Vienna, Austria), Poster

2007.12.14 **Nanko, K.**, Onda, Y., Ito, A., Moriwaki, H. Influence of canopy thickness on throughfall amount and kinetic energy under different canopy saturation conditions: An indoor experiment with a Japanese cypress (*Chamaecyparis obtusa*) stand. *2007 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA), Poster

2007.07.28 **Nanko, K.**, Onda, Y., Ito, A., Moriwaki, H. Influence of canopy structures on generating throughfall erosivity: An experimental approach. *Sustainable forestry for water resources management and flood mitigation in mountainous regions* (Nagoya University, Nagoya, Japan), Poster

2007.04.18 **Nanko, K.**, Onda, Y., Ito, A., Moriwaki, H. Influence of canopy structures on generating throughfall erosivity: An experimental approach. *EGU General Assembly 2007* (Austria Center Vienna, Vienna, Austria), Poster

2006.10.16 **Nanko, K.**, Onda, Y., Ito, A., Ito, S., Moriwaki, H. Effect of canopy structures for spatial distribution of throughfall depth and raindrops with experimental approach. *3rd APHW Conference* (The Grand Hotel, Bangkok, Thailand), Oral

2005.12.09 **Nanko, K.**, Mizugaki, S., Onda, Y., Hiramatsu, S. Evaluation of splash erosion at forest floor in mature Japanese cypress plantations. *2005 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA), Poster

2004.07.11 **Nanko, K.**, Hotta, N., Suzuki, M. The influence of forest species and atmospheric phenomena on the throughfall rainfall size distribution. *IUFRO Forest Hydrology Workshop* (Kota Kinabalu, Malaysia), Poster

Symposium Presentations as a Co-author (in English)

2016 – pres.

2020.07.15 Ishizuka, M., Kurosaki, Y., Hagino, H., **Nanko, K.**, Batdelger, G., Yasuda, Y., Suzuki, S. Wind tunnel experiment on sand saltation splash by using a high-speed camera. *JpGU - AGU Joint Meeting 2020* (Online, Japan)

2020.05.06 Llorens, P., Latron, J., Carlyle-Moses, D.E., Nathë, K., Chang, J.L., **Nanko, K.**, Iida, S., Levia, D.F. Stemflow infiltration areas into forest soils around American beech trees. *EGU General Assembly 2020* (Online, Austria)

2019.10.05 Yamada, Y., Yamaura, Y., Takahashi, M., **Nanko, K.**, Matsuura, T., Hashimoto, S., Takayama, N., Toda, K., Sato, T. Simulating Impacts of Local Forest Policies on Forest Ecosystem Functions. *XXV IUFRO World Congress 2019* (Expo Unimed Ciritiba, Critiba, Brazil)

2019.05.30 Ishizuka, M., Nakahara, Y., Masaoka, H., Nakao, G., Ishii, T., Kurosaki, Y., Hagino, H., Nakamura, K., Bantsetseg, B., **Nanko, K.**, Nishihara, E., Suzuki, S. Wind tunnel experiments for saltation and dust emission under weak crusted Mongolian soil. *JpGU Meeting 2019* (Makuhari Messe, Chiba, Japan)

2019.05.29 Iida, S., Carlyle-Moses, D.E., Germer, S., Llorens, P., Michalzike, B., **Nanko, K.**, Tischere, A., Levia, D.F. Quantifying stemflow to better express its ecohydrological significance. *JpGU Meeting 2019* (Makuhari Messe, Chiba, Japan)

2019.05.26 Saidin, Z.H., Onda, Y., Kato, H., Kurihara, M., **Nanko, K.**, Levia, D.F. Spatial variability of radiocesium deposition through the tree canopy via branchflow and stemflow. *JpGU Meeting 2019* (Makuhari Messe, Chiba, Japan)

2019.04.12 Pinos, J., Latron, J., Cayuela, C., **Nanko, K.**, Levia, D.F., Llorens, P. Can drop characteristics explain differences in isotopic composition between open rainfall and throughfall? *EGU General Assembly 2019* (Austria Center Vienna, Vienna,

Austria)

2019.04.08 Saidin, Z.H., Onda, Y., Kato, H., Kurihara, M., **Nanko, K.**, Levia, D.F. Vertical variation in the transport and fate of radiocesium through the canopy via branchflow and stemflow. *EGU General Assembly 2019* (Austria Center Vienna, Vienna, Austria)

2018.12.14 Levia, D.F., Iida, S., **Nanko, K.**, Sun, X., Shimizu, T., Tamai, K., Shinohara, Y. The importance of gauge calibration in quantifying canopy interception loss. *2018 AGU Fall Meeting* (Walter E. Washington Convention Center, Washington, D.C., USA)

2018.09.28 Nakahara Y., Ishizuka, M., Kurosaki, Y., Hagino, H., Batdelger, G., **Nanko, K.**, Suzuki, S., Nakamura, K. Experimental study on motion characteristics of saltating grains under crusted soils related to the dust emission in drylands. *2018 joint 14th iCACGP Quadrennial Symposium/15th IGAC Science Conference* (Sunport Takamatsu Convention Center, Takamatsu, Japan)

2018.09.12 Singla, B., Latron, J., **Nanko, K.**, Levia, D.F., Molina, A.J., Cayuela, C., Oromí, M., Gallart, F., Llorens, P. Relationship between throughfall drop size and isotopic composition: Preliminary insights from an ongoing experiment in Mediterranean conditions (Vallcebre, North-Eastern Spain). *17th Biennial Conference ERB 2018* (Technische Universität Darmstadt, Darmstadt, Germany)

2018.05.24 Iida, S., Levia, D.F., **Nanko, K.**, Sun, X., Shinohara, Y., Sakai, N. Stemflow and canopy structure: Revelations from the NIED large-scale rainfall simulator. *JpGU Meeting 2018* (Makuhari Messe, Chiba, Japan)

2018.04.13 Levia, D.F., Iida, S., **Nanko, K.**, Sun, X., Shinohara, Y., Sakai, N. Disentangling the relative influence of canopy structure on stemflow: Insights from a large-scale rainfall simulator and Bayesian statistics. *EGU General Assembly 2018* (Austria Center Vienna, Vienna, Austria)

2018.04.13 Singla, B., Latron, J., **Nanko, K.**, Levia, D.F., Molina, A.J., Cayuela, C., Oromí, M., Llorens, P. Preliminary insights into the relationship between throughfall drop size and isotopic composition. *EGU General Assembly 2018* (Austria Center Vienna, Vienna, Austria)

2018.04.11 Hashimoto, S., **Nanko, K.**, Ťupek, B., Lehtonen, A. Data-mining analysis of the global distribution of soil carbon in observational databases and Earth System Models. *EGU General Assembly 2018* (Austria Center Vienna, Vienna, Austria)

2018.04.09 Seitz, S., Fernández-Raga, M., **Nanko, K.** Splash and interrill erosion research: Current needs and future prospects. *EGU General Assembly 2018* (Austria Center Vienna, Vienna, Austria)

2017.12.15 Levia, D.F., Iida, S., **Nanko, K.**, Sun, X., Shinohara, Y., Sakai, N. Use of a large-scale rainfall simulator reveals novel insights into stemflow generation. *2017 AGU Fall Meeting* (Ernest N. Morial Convention Center, New Orleans, LA, USA)

2017.06.27 Yamashita, N., Hashimoto, S., **Nanko, K.**, Ishizuka, S., Osone, Y., Ugawa, S., Tanaka, N., Imaya, A., Kaneko, S., Miura, S. Fine-resolution mapping of soil carbon stock in Japanese forest based on machine-learning regression kriging. *Pedometrics 2017* (Hof van Wageningen, Wageningen, Netherlands)

2017.04.27 Levia, D.F., Imamura, N., Toriyama, J., Kobayashi, M., **Nanko, K.** Spatial heterogeneity of radiocesium in the soil of a broadleaved deciduous forest: The marked role of stemflow. *EGU General Assembly 2017* (Austria Center Vienna, Vienna, Austria)

2017.04.24 Hiraoka, M., Onda, Y., Gomi, T., Mizugaki, S., **Nanko, K.**, Kato, H. Controlling factors for infiltration on undisturbed hillslopes in unmanaged plantation forests. *EGU General Assembly 2017* (Austria Center Vienna, Vienna, Austria)

2016.11.15 Levia, D.F., Hudson, S.A., Llorens, P., **Nanko, K.** Disdrometers: A useful tool to

measure throughfall drop size distributions. *Irish National Hydrology Conference 2016* (Hodson Bay Hotel, Athlone, Co. Roscommon, Ireland)

2011 – 2015

2015.12.14 Tanaka, N., Levia, D.F., Igarashi, Y., Yoshifuji, N., Tanaka, K., Chatchai, T., **Nanko, K.**, Suzuki, M., Kumagai, T. Factors Governing Stemflow Production from Plantation Grown Teak Trees in Thailand. *2015 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2015.12.14 Hudson, S.A., Levia, D.F., **Nanko, K.** Examining the role of meteorological conditions and throughfall drop sizes. *2015 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2015.12.14 Oda, T., Hiraoka, M., **Nanko, K.**, Sato, T., Hotta, N., Ohte, N., Suzuki, M., Uchiyama, Y. Spatial pattern of the throughfall volume on a steep slope dominated by deciduous broad-leaved trees. *2015 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2014.12.16 Tanaka, N., Levia, D.F., Igarashi, Y., **Nanko, K.**, Yoshifuji, N., Tanaka, K., Chatchai, T., Suzuki, M., Kumagai, T. Throughfall under a teak plantation in Thailand: A multifactorial analysis on the effects of canopy phenology and meteorological conditions. *2014 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2014.12.16 Hudson, S.A., **Nanko, K.**, Levia, D.F. Throughfall drop size distribution in relation to leaf canopy state. *2014 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2014.11.11 Saito, A., Kotani, A., Ohta, T., Maximov, T.C., Kononov, A.V., **Nanko, K.** Differences in characteristic of water and carbon exchanges in overstory and understory in eastern Siberian larch forest. *8th annual international symposium on ""C/H2O/Energy balance and climate over boreal and arctic regions with special emphasis on eastern Eurasia"* (Kasteel Hoekelum, Wageningen, Netherlands)

2014.10.07 Miura, S., Kanamori, M., Ogaya, N., **Nanko, K.**, Nagame, I., Suzuki, M. A new soil erosion survey method in the national forest inventory of Japan. *IUFRO World Congress 2014* (Salt Palace Convention Center, Salt Lake City, UT, USA)

2014.08.01 Ueno, K., **Nanko, K.**, Mochizuki, H. Rain on snow (ROS) in Japanese Alps. *AOGS 11th Annual Meeting* (Royton Sapporo Hotel, Sapporo, Japan)

2014.06.08 Kaneko, S., Miura, S., Ugawa, S., **Nanko, K.**, Tanaka, N., Osone, Y., Takahashi, M. Carbon stock of dead wood, litter and mineral soil in the forest of Japan. *20th World Congress of Soil Science* (ICC JEJU, Jeju, Korea)

2013.08.19 Sakai, Y., Ishizuka, S., **Nanko, K.**, Ugawa, S., Kaneko, S. Lignin stock in deadwood debris accumulated in Japanese plantation forests. *INTECOL 2013* (ExCeL London, London, UK)

2013.07.12 Ueno, K., **Nanko, K.**, Sato, K. Winter rain on snow in Japanese Alps. *Davos Atmosphere and Cryosphere Assembly DACA-13* (Congress Centre Davos, Davos, Switzerland)

2013.04.09 Hashimoto, S., Matsuura, T., **Nanko, K.**, Linkov, I., Shaw, G., Kaneko, S Predicted spatio-temporal dynamics of radiocesium deposited on forests following the Fukushima Dai-ichi nuclear power plant accident. *EGU General Assembly 2013* (Austria Center Vienna, Vienna, Austria)

2012.09.26 Kaneko, S., Ugawa, S., Miura, S., **Nanko, K.**, Takahashi, M. Monitoring of organic carbon stocks in Japanese forest soil. *MARCO Symposium 2012, Strengthening Collaboration to meet Agro-Environmental Challenges in Monsoon Asia, Tsukuba, Japan* (International Congress Center, Tsukuba, Japan)

2012.09.19 Hirata, A., Onda, Y., Kato, H., **Nanko, K.**, Kuraji, K., Tanaka, N., Gomi, T. Effects of forest thinning on canopy interception in Japanese cypress plantations: Changes

in the proportion of throughfall components. *3rd International Conference on Forests and Water in a Changing Environment* (Kyushu University, Fukuoka, Japan)

2012.07.03 Ugawa, S., **Nanko, K.**, Tanaka, N., Ikeda, S., Miura, S., Morisada, K., Takahashi, M., Kaneko, S. Soil carbon stocks in the forest sector of Japan and their determining factor. *4th International Congress EUROSOIL 2012* (Fiera del Levante, Bari, Italy)

2011.10.18 Miura, S., Ugawa, S., **Nanko, K.**, Tanaka, N., Ikeda, S., Morisada, K., Kaneko, S., Takahashi, M. National inventory of soil carbon stock in Japanese forest confirmed historical human impact on soil degradation for hundred of years. *ASA, CSSA and SSSA International Annual Meetings* (Henry Gonzalez Convention Center, San Antonio, TX, USA)

2006 – 2010

2010.12.13 Kato, H., Onda, Y., **Nanko, K.**, Gomi, T. Field study of rainfall redistribution in Japanese cypress plantations. *2010 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2010.06.22 Onda, Y., Gomi, T., Mizugaki, S., **Nanko, K.**, Fukushima, T. Field and modeling studies on the effects of forest devastation on flooding and environmental issues. *2010 Western Pacific Geophysics Meeting* (Taipei International Convention Center, Taipei, Taiwan)

2009.05.05 Giambelluca, T.W., Sutherland, R.A., **Nanko, K.**, Mudd, R.G., Ziegler, A.D. Effects of *Miconia* on hydrology: A first approximation. *International Miconia Conference, Keanae, Maui, Hawaii, May 4-7, 2009* (University of Hawaii at Manoa., Maui, HI, USA)

2008.04.18 Wakiyama, Y., Onda, Y., **Nanko, K.**, Mizugaki, S., Kim, Y., Kitahara, H., Ono, H. Temporal variations of rain splash at the forest floor of Japanese cypress plantations. *EGU General Assembly 2008* (Austria Center Vienna, Vienna, Austria)

2008.04.15 Mizugaki, S., Onda, Y., Gomi, T., Nanko K., Asai, H., Nagamine, M., Hiramatsu, S. Sediment transport by surface erosion in a mountain catchment draining Japanese cypress forest — understanding connectivity of sediment from hillslope to channel. *EGU General Assembly 2008* (Austria Center Vienna, Vienna, Austria)

2007.12.14 Mizugaki, S., **Nanko, K.**, Onda, Y. The effect of slope angle on splash detachment in steep forest plantation. *2007 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

2007.07.28 Mizugaki, S., Gomi, T., Onda, Y., Asai, H., **Nanko, K.**, Asano, Y., Nagamine, M. Runoff and sediment routing in a Japanese cypress plantation watershed estimated from field observation and fingerprinting techniques. *Sustainable forestry for water resources management and flood mitigation in mountainous regions* (Nagoya University, Nagoya, Japan)

2007.07.28 Wakiyama, Y., Onda, Y., **Nanko, K.**, Mizugaki, S., Kim, Y., Kitahara, A., Ono, H. Temporal variation of rain splash at forest floor of young Japanese cypress plantations. *Sustainable forestry for water resources management and flood mitigation in mountainous regions* (Nagoya University, Nagoya, Japan)

2007.04.20 Onda, Y., Mizugaki, S., **Nanko, K.**, Asai, H., Nagamine, M., Gomi, T., Hiramatsu, S. Sediment yield and transportation in a humid forest plantation catchment through various scale field monitoring and FRN analysis. *EGU General Assembly 2007* (Austria Center Vienna, Vienna, Austria)

2007.04.18 Mizugaki, S., Onda, Y., Koga, S., Fukuyama, T., **Nanko, K.**, Asai, H., Nagamine, M., Hiramatsu, S. Contribution of forest floor to suspended sediment in conifer (Japanese cypress) plantation and broadleaf forest watersheds. *EGU General Assembly 2007* (Austria Center Vienna, Vienna, Austria)

2006.12.13 Onda, Y., Mizugaki, S., **Nanko, K.**, Asai, H. Estimating sediment sources by

multiple scale field measurements and fingerprinting using radionuclides. *2006 AGU Fall Meeting* (Moscone Center, San Francisco, CA, USA)

Journal Reviewing

As an Associate Editor

- *Hydrological Research Letters* (2011-pres.)

As a Reviewer

36 journals

- Agricultural and Forest Meteorology
- Atmosphere
- Catena
- Earth Surface Processes and Landforms
- Earth System Science Data
- Ecological Research
- Forest Science
- Forestry
- Forests
- Geoderma
- Hydrological Processes
- Hydrological Research Letters
- Hydrological Sciences Journal
- IEEJ Transactions on Electrical and Electronic Engineering
- International Agrophysics
- Japan Agricultural Research Quarterly: JARQ
- Journal of Agricultural Meteorology
- Journal of Experimental Botany
- Journal of Forest Research
- Journal of Hydrology
- Journal of Hydrometeorology
- Journal of Mountain Science
- Journal of Plant Nutrition and Soil Science
- Land Degradation & Development
- Pedosphere
- Plos One
- Progress in Physical Geography
- Quaternary International
- Science of the Total Environment
- Scientia Agricola
- Soil Science and Plant Nutrition
- Soil Science Society of America Journal
- ○ Japanese Journal of Forest Environment
- ○ Journal of the Japanese Forest Society
- ○ Proceedings of Journal of Japan Society of Civil Engineers
- ○ Journal of Japan Society of Hydrology and Water Resources

* *Enclosed number in parentheses* indicates the number of times.
* *Filled circle* indicates international journal and *open circle* indicates Japanese domestic journal, respectively.

Academic Societies

- American Geophysical Union (AGU)
- European Geosciences Union (EGU)
- International Association of Hydrological Sciences (IAHS)
- ○ The Japanese Forest Society
- ○ Japan Society of Hydrology and Water Resources
- ○ Japanese Society of Coastal Forest

* *Filled circle* indicates international society and *open circle* indicates Japanese domestic society, respectively.

Committee Activities

- American Geophysical Union (AGU)

・Judge of Outstanding Student Poster Awards (OSPA), 2017–19

● European Geosciences Union (EGU)
・Judge of Outstanding Student Poster and PICO (OSPP) Awards, 2018

○ The Japanese Forest Society
・Assistant of Secretary General, 2014–16 & 2019–pres.
・Judge of the student poster award, 2013

○ Japanese Society of Coastal Forest
・Manager of Publicity Committee, 2018–pres.

○ Japan Society of Hydrology and Water Resources
・Member of International Journal Editorial Committee, 2011–pres.