KEI YOSHIMURA

Institute of Industrial Science, the University of Tokyo
5-1-5 Kashiwanoha, Kashiwa, Chiba 277-8574
email: kei@iis.u-tokyo.ac.jp https://isotope.iis.u-tokyo.ac.jp/~kei
phone: +81(4) 7136-6965 fax: +81(4) 7136-6965

As of December 2025

RESEARCH INTERESTS

- Study of stable water isotope (HDO and $H_2{}^{18}O$) circulation
- Data assimilation, particularly for stable water isotopes with the ensemble Kalman filter
- Reconstruction of past climate using isotopic proxies
- Dynamical downscaling and development of a Regional Earth System Model
- Study on terrestrial hydrologic cycles and development of river and land surface models

REMARKS ON RESEARCH

My current research is focused on various interdisciplinary areas including global and regional meteorology, land surface and atmospheric hydrology, and paleoclimatology, all of which are bridged by natural isotopic tracers. The main thrust of my work is toward better understanding of the Earth climate system, and this is explored both by utilizing additional information obtained from isotopic records and by developing models that simulate the observed processes. Moreover, I would emphasize that, by being an intensive climate system modeler with great knowledge of isotopic tracers myself, I am fully capable of bridging the divide between retrospective and forward modeling efforts in paleo- and current/future climate studies.

EDUCATION

February 2006	Ph.D. Civil Engineering from The University of Tokyo, Tokyo, Japan
September 2002	M.S. Civil Engineering from The University of Tokyo, Tokyo, Japan
March 2000	B.S. Civil Engineering from The University of Tokyo, Tokyo, Japan

PROFESSIONAL EXPERIENCE

June 2019 to present	*Professor* at Institute of Industrial Science, The University of Tokyo, Japan
April 2016 to May 2019	*Associate Professor* at Institute of Industrial Science, The University of Tokyo, Japan
March 2010 to March 2016	*Associate Professor* at Atmosphere and Ocean Research Institute, The University of Tokyo, Kashiwa, Japan
August 2008 to March 2010	*Project Scientist* at Scripps Institution of Oceanography, UCSD, La Jolla, CA, USA (*Visiting Scholar* during June 2006 to May 2008)
October 2002 to July 2008	*Assistant Professor* at Institute of Industrial Science, The University of Tokyo, Tokyo, Japan (*Research Associate* during May 2004 to March 2007)

TEACHING (main contribution only)

2010 to present	*Advanced Hydrology* in Dep. of Civil Engineering, Graduate level.
2017 to present	*Hydrosphere Science Project* in Dep. of Civil Engineering, Graduate level.
2010 to 2017	*Global Water Cycles and Society* in Dep. of Civil Engineering, Undergraduate level.
2018 to present	*Hydrology* in Progress in Dep. of Civil Engineering, Undergraduate level.
2012 to present	*Environmental Modeling* in Dep. of Natural Environmental Studies, Graduate level.

HONORS AND AWARDS

January 2023	*The Generation Award* from INNO-vation program, Ministry of Internal Affairs and Communications
March 2022	*Space Exploitation Prize, MEXT Minister Award* from Cabinet Office, Government of Japan
April 2021	*Science and Technology Award (Science and Technology Promotion Category), The Commendation for Science and Technology* from the Minister of Education, Culture,

	Sports, Science and Technology
October 2020	*JAXA President Award for social contribution* from Japan Aerospace Exploration Agency
October 2018	*Horiuchi Award* from Meteorological Society of Japan
August 2016	*Outstanding Discussion Award* from Japan Society of Civil Engineering
March 2014	*Thesis Award* from Japan Society of Civil Engineering
April 2012	*The Young Scientists' Prize, The Commendation for Science and Technology* from the Minister of Education, Culture, Sports, Science and Technology
October 2011	*Innovation Award for ACRS2011* from AARS Foundation
August 2008	*Thesis Award for Young Scientists* from Japan Society of Hydrology and Water Resources Engineering
June 2006	*Postdoctoral Fellowships for Research Abroad* from Japan Society for the Promotion of Science
March 2004	*Thesis Award for Young Scientists* from Japan Society of Civil Engineering
September 2002	*Furuichi Award* (upper 10% of master course graduates) from Civil Engineering Department, The University of Tokyo Graduate School

EDITORIAL SERVICE

2018 to present	*Editor* for Hydrological Research Letters
2017 to present	*Associate Editor* for The Journal of Advances in Modeling Earth Systems
2013 to present	*Associate Editor* for Progress in Earth and Planetary Science
2010 to present	*Associate Editor* for Asia-Pacific Journal of Atmospheric Sciences
2008 to 2018	*Associate Editor* for Hydrological Research Letters

INTERNATIONAL COLLABORATIVE RESEARCH ACTIVITIES

2023 to present	*Member:* Expert Team of Operational Hydrological Prediction Systems, WMO
2018 to present	*Member:* The US CLIVAR Working Group on Observations and Modeling of Water Isotopes in the Climate System
2018 to present	*Member:* Isotope-enabled Models for Improved Estimates of Water Balance in Catchments, CRP F31005, IAEA
2013 to 2016	*Member*: GEWEX Hydrological Panel, WCRP
2008 to 2012	*Co-chair*: The second phase of the Stable Water Isotope Intercomparison Group (SWING2)
2007 to 2010	*Project Planning Committee Member*: Coordinated Energy and Water Cycle Observations Project (CEOP)
2004 to 2007	*Core Member*: Stable Water Isotope Intercomparison Group (SWING)
2004 to 2006	*Core Member*: Isotopes in Project for Intercomparison of Land-surface Parameterization Schemes (iPILPS)

SELECTED PUBLICATIONS (187 journal papers in total)

1. Li, H., W. Xie, X. Li and K. Yoshimura, Improvement of simulating GPP and ET in the land surface model based on parameter calibration, *Hydrol. Res. Letters*, 2025. https://doi.org/10.3178/hrl.25-00033
2. Zhu, Y., K. Yoshimura, Y. Liu, X. Wang, Global Flood Extent Monitoring Using SAR Satellite and Hydrological Data: A Multi-Scale and Multi-Source Approach, *J. Hydrology*, 2025. https://doi.org/10.1016/j.jhydrol.2025.134074
3. Li, S., D. Yamazaki, T. Tozawa, K. Adachi, T. Nitta, G. Zhao, X. Zhou, K. Yoshimura, Appropriate Resolution of Hillslope Land Cover Heterogeneity Improves Simulation of Terrestrial Energy and Water Budgets, *Water Res. Resour.*, 2025. https://doi.org/10.1029/2025WR040706 press release article https://www.iis.u-tokyo.ac.jp/ja/news/4867/