Stanford



Alexandra Konings

Associate Professor of Earth System Science, Senior Fellow at the Woods Institute for the Environment and Associate Professor, by courtesy, of Geophysics

Curriculum Vitae available Online

Bio

BIO

Alexandra Konings leads the Remote Sensing Ecohydrology group, which studies interactions between the global carbon and water cycles. That is, her research studies how changes in hydrological conditions change ecosystems, and how this in turn feeds back to weather and climate. These interactions include studies of transpiration and root water uptake, photosynthesis, mortality, and fire processes, among others. To address these topics, the groups primarily uses the tools of model development and remote sensing (satellite) data, especially microwave remote sensing data of vegetation water content. Alex believes that a deep understanding of remote sensing techniques and how they can be used to create environmental datasets enables new opportunities for scientific insight and vice versa.

ACADEMIC APPOINTMENTS

- Associate Professor, Earth System Science
- Senior Fellow, Stanford Woods Institute for the Environment
- Associate Professor (By courtesy), Geophysics
- Member, Bio-X

ADMINISTRATIVE APPOINTMENTS

- Faculty Affiliate, Stanford Woods Institute for the Environment, (2016- present)
- Assistant Professor, Stanford Department of Earth System Science, (2016- present)
- Visiting Postdoc, NASA Jet Propulsion Laboratory, (2016-2016)
- Visiting Postdoc, Columbia University, (2015-2016)
- NASA Earth and Space Science Fellow, Massachusetts Institute of Technology, (2012-2015)
- NSF Graduate Research Fellow, Massachusetts Institute of Technology, (2011-2011)
- NSF Graduate Research Fellow, Duke University, (2009-2011)

HONORS AND AWARDS

- Sloan Research Fellowship, Alfred P. Sloan Foundation (2023)
- Global Environmental Change Early Career Award, AGU (2021)
- Editor's Citation for Excellence in Refereeing (Geophysical Research Letters), AGU (2020)
- CAREER, NSF (2020-2025)
- New (Early Career) Investigator Award, NASA (2018-2021)
- Group Achievement Award: AirMOSS Implementation Team, NASA (2016)

- Best Doctoral Thesis Award, MIT Department of Civil and Environmental Engineering (2015-2016)
- Earth and Space Science Fellowship, NASA (2012-2015)
- Graduate Research Fellowship, National Science Foundation (2009-2012)
- James B. Duke Fellowship, Duke University (2009-2011)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Jasper Ridge Biological Preserve Faculty Advisory Committee (2017 - present)
- Member, AGU Hydrology Technical Committee on Remote Sensing (2016 - present)
- Member, IEEE Geoscience and Remote Sensing Society (2010 - present)
- Member, American Geophysical Union (2008 - present)

PROFESSIONAL EDUCATION

- Ph.D., Massachusetts Institute of Technology , Hydrology (2015)
- M.S., Duke University , Environmental Science (2011)
- S.B., Massachusetts Institute of Technology , Environmental Engineering Science (2009)

LINKS

- Remote Sensing Ecohydrology Group: http://koningslab.stanford.edu

Teaching

COURSES

2026-27

- Biosphere-Atmosphere Interactions: ESS 123, ESS 223 (Spr)
- Remote Sensing of Hydrology: CEE 260D, ESS 224 (Win)

2025-26

- Biosphere-Atmosphere Interactions: EARTHSYS 123A, EARTHSYS 223, ESS 123, ESS 223 (Win)
- Remote Sensing of Hydrology: CEE 260D, ESS 224 (Win)

2024-25

- Biosphere-Atmosphere Interactions: EARTHSYS 123A, EARTHSYS 223, ESS 123, ESS 223 (Win)

2023-24

- Biosphere-Atmosphere Interactions: EARTHSYS 123A, EARTHSYS 223, ESS 123, ESS 223 (Win)
- Remote Sensing of Hydrology: CEE 260D, ESS 224 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Ivan Higuera-Mendieta, Jared Trok

Postdoctoral Faculty Sponsor

Weiwei Zhan

Doctoral Dissertation Advisor (AC)

Trent Robinett

Master's Program Advisor

Lillian Sanders

Doctoral Dissertation Co-Advisor (AC)

Veda Sunkara

Doctoral (Program)

Ashley DeFrates, Mitchell Hung, Erica McCormick, Trent Robinett

Publications

PUBLICATIONS

- **Monitoring Water in Vegetation: Mind the Gap Between Satellite Remote Sensing and Field Scale Approaches.** *Current forestry reports*
  Chaparro, D., Jagdhuber, T., Yebra, M., Rüdiger, C., Jonard, F., Feldman, A. F., Konings, A. G., Binks, O.
  2026; 12 (1): 34
- **Assessment of vegetation water dynamics by comparing microwave remote sensing signals from satellites and field-based GNSS reflectometry** *BIOGEOSCIENCES*
  Feldman, A. F., Smith, W. K., Konings, A. G., Baur, M. J., Browne, M., Chaparro, D., Devine, C., Diehl, J. L., Endsley, A., Jagdhuber, T., Larson, K. M., del Mar Valle-Rodriguez, C., Schellenberg, et al
  2026; 23 (21): 8159-8181
- **Reconciling Remote Sensing and Reanalysis Land Surface Temperatures: How Surface Conditions Shape Systematic Differences between GOES-16 and MERRA-2 across the Contiguous United States** *JOURNAL OF APPLIED METEOROLOGY AND CLIMATOLOGY*
  Kathuria, D., Konings, A. G., Kolassa, J., Liu, Y., Zhao, M., Shiklomanov, A. N.
  2026; 65 (7): 1027-1043
- **High-resolution L-band VOD retrieval using GNSS-T-calibrated multi-sensor fusion and self-supervised learning** *REMOTE SENSING OF ENVIRONMENT*
  Hashemi, M. G. Z., Bolten, J. D., Konings, A. G., Holmes, T. R., Humphrey, V., Feldman, A. F., Yao, Y., Niederberger, M., Damm, A.
  2026; 344
- **Parameterizing Stomatal Conductance Based on Trait-Environment Relationships Often Improves Land Surface Model Predictions of Evapotranspiration and Streamflow** *JOURNAL OF ADVANCES IN MODELING EARTH SYSTEMS*
  Robinett, T. W., Kolassa, J., Zhao, M., Liu, Y., Shiklomanov, A., Konings, A. G.
  2026; 18 (5)
- **Widespread peat carbon losses driven by the 2025 Scottish megafire.** *Nature geoscience*
  Schoenecker, J., Baur, M. J., Kohli, J., Baker, S., Jones, M., Veraverbeke, S., Konings, A. G., Pellegrini, A. F.
  2026; 19 (7): 763-766
- **Continuous monitoring of plant water potential: sensor-based approaches and best practices.** *The New phytologist*
  Restrepo-Acevedo, A. M., Guo, J., Novick, K., Humphrey, V., Zweifel, R., Konings, A. G., Koch, G., Knowles, J., Anderegg, L. D., Peters, J. M., Paligi, S., Schenk, H. J., Beverly, et al
  2026
- **Triple collocation validates CONUS-wide evapotranspiration inferred from atmospheric conditions** *HYDROLOGY AND EARTH SYSTEM SCIENCES*
  McCormick, E. L., Sanders, L. E., McColl, K. A., Konings, A. G.
  2026; 30 (8): 2417-2432
- **Widespread Co-Location of Less Frequent and More Intense Daily Precipitation Over Land** *GEOPHYSICAL RESEARCH LETTERS*
  Feldman, A. F., Feng, X., Felton, A. J., Crow, W. T., Biederman, J. A., Konings, A. G., Poulter, B., Serbin, S. P.
  2026; 53 (6)
- **Satellite-Constrained Reanalysis Reveals CO2 Versus Climate Process Compensation Across the Global Land Carbon Sink** *AGU ADVANCES*
  Bilir, T., Bloom, A., Konings, A. G., Liu, J., Parazoo, N. C., Quetin, G. R., Norton, A. J., Worden, M. A., Levine, P. A., Ma, S., Braghiere, R. K., Longo, M., Bowman, et al
  2025; 6 (5)

- **Combining Observations and Models: A Review of the CARDAMOM Framework for Data-Constrained Terrestrial Ecosystem Modeling.** *Global change biology*
  Worden, M. A., Bilir, T. E., Bloom, A. A., Fang, J., Klinek, L. P., Konings, A. G., Levine, P. A., Milodowski, D. T., Quetin, G. R., Smallman, T. L., Bar-On, Y. M., Braghiere, R. K., David, et al
  2025; 31 (8): e70462
- **Substantial root-zone water storage capacity observed by GRACE and GRACE/FO** *HYDROLOGY AND EARTH SYSTEM SCIENCES*
  Zhao, M., McCormick, E. L., Geruo, A., Konings, A. G., Li, B.
  2025; 29 (10): 2293-2307
- **Susceptibility to Photosynthesis Suppression From Extreme Storms Is Highly Site-Dependent** *GLOBAL CHANGE BIOLOGY*
  Mccormick, E. L., Famiglietti, C. A., Feng, D., Michalak, A. M., Konings, A. G.
  2025; 31 (5): e70257
- **Estimation of Forest Water Potential From Ground-Based L-Band Radiometry** *IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING*
  Jagdhuber, T., Schmidt, A., Fluhrer, A., Chaparro, D., Jonard, F., Piles, M., Holtzman, N., Konings, A. G., Feldman, A. F., Baur, M. J., Steele-Dunne, S., Schellenberg, K., Kunstmann, et al
  2025; 18: 5509-5522
- **Large global-scale vegetation sensitivity to daily rainfall variability.** *Nature*
  Feldman, A. F., Konings, A. G., Gentine, P., Cattry, M., Wang, L., Smith, W. K., Biederman, J. A., Chatterjee, A., Joiner, J., Poulter, B.
  2024; 636 (8042): 380-384
- **A Theoretical Framework to Quantify Ecosystem Pressure-Volume Relationships.** *Global change biology*
  Binks, O., Meir, P., Konings, A. G., Cernusak, L., Christoffersen, B. O., Anderegg, W. R., Wood, J., Sack, L., Martinez-Vilalta, J., Mencuccini, M.
  2024; 30 (11): e17567
- **Theory and the future of land-climate science** *NATURE GEOSCIENCE*
  Byrne, M. P., Hegerl, G. C., Scheff, J., Adam, O., Berg, A., Biasutti, M., Bordoni, S., Dai, A., Geen, R., Henry, M., Hill, S. A., Hohenegger, C., Humphrey, et al
  2024
- **PSInet: A new global water potential network.** *Tree physiology*
  Restrepo-Acevedo, A. M., Guo, J. S., Kannenberg, S. A., Benson, M. C., Beverly, D., Diaz, R., Anderegg, W. R., Johnson, D. M., Koch, G., Konings, A. G., Lowman, L. E., Martínez-Vilalta, J., Poyatos, et al
  2024
- **Temperature Is Likely an Important Omission in Interpreting Vegetation Optical Depth** *GEOPHYSICAL RESEARCH LETTERS*
  Zhao, M., Humphrey, V., Feldman, A. F., Konings, A. G.
  2024; 51 (15)
- **Tree species explain only half of explained spatial variability in plant water sensitivity.** *Global change biology*
  Konings, A. G., Rao, K., McCormick, E. L., Trugman, A. T., Williams, A. P., Diffenbaugh, N. S., Yebra, M., Zhao, M.
  2024; 30 (7): e17425
- **The Ecosystem as Super-organ/lsm, Revisited: Scaling Hydraulics to Forests under Climate Change.** *Integrative and comparative biology*
  Wood, J. D., Detto, M., Browne, M., Kraft, N. J., Konings, A. G., Fisher, J. B., Quetin, G. R., Trugman, A. T., Magney, T. S., Medeiros, C. D., Vinod, N., Buckley, T. N., Sack, et al
  2024
- **Inferred drought-induced plant allocation shifts and their impact on drought legacy at a tropical forest site.** *Global change biology*
  Worden, M. A., Famiglietti, C. A., Levine, P. A., Ma, S., Bloom, A. A., Bonal, D., Stahl, C., Konings, A. G.
  2024; 30 (5): e17287
- **Plant responses to changing rainfall frequency and intensity** *NATURE REVIEWS EARTH & ENVIRONMENT*
  Feldman, A. F., Feng, X., Felton, A. J., Konings, A. G., Knapp, A. K., Biederman, J. A., Poulter, B.
  2024
- **Ecosystem Water-Saving Timescale Varies Spatially With Typical Drydown Length** *AGU ADVANCES*
  Holtzman, N., Sloan, B., Potkay, A., Katul, G., Feng, X., Konings, A. G.

2024; 5 (2)

- **Investigating Diurnal and Seasonal Cycles of Vegetation Optical Depth Retrieved From GNSS Signals in a Broadleaf Forest** *GEOPHYSICAL RESEARCH LETTERS*
  Yao, Y., Humphrey, V., Konings, A. G., Wang, Y., Yin, Y., Holtzman, N., Wood, J. D., Bar-On, Y., Frankenberg, C.
  2024; 51 (6)
- **A new empirical framework to quantify the hydraulic effects of soil and atmospheric drivers on plant water status** *GLOBAL CHANGE BIOLOGY*
  Mencuccini, M., Anderegg, W. R. L., Binks, O., Knipfer, T., Konings, A. G., Novick, K., Poyatos, R., Martinez-Vilalta, J.
  2024; 30 (3): e17222
- **The impacts of rising vapour pressure deficit in natural and managed ecosystems.** *Plant, cell & environment*
  Novick, K. A., Ficklin, D. L., Grossiord, C., Konings, A. G., Martínez-Vilalta, J., Sadok, W., Trugman, A. T., Williams, A. P., Wright, A. J., Abatzoglou, J. T., Dannenberg, M. P., Gentine, P., Guan, et al
  2024
- **Water Stress Dominates 21st-Century Tropical Land Carbon Uptake** *GLOBAL BIOGEOCHEMICAL CYCLES*
  Levine, P. A., Bloom, A., Bowman, K. W., Reager, J. T., Worden, J. R., Liu, J., Parazoo, N. C., Meyer, V., Konings, A. G., Longo, M.
  2023; 37 (12)
- **Impacts of climate timescale on the stability of trait-environment relationships.** *The New phytologist*
  Famiglietti, C. A., Worden, M., Anderegg, L. D., Konings, A. G.
  2023
- **Constraining Plant Hydraulics With Microwave Radiometry in a Land Surface Model: Impacts of Temporal Resolution** *WATER RESOURCES RESEARCH*
  Holtzman, N., Wang, Y., Wood, J. D., Frankenberg, C., Konings, A. G.
  2023; 59 (11)
- **Diagnosing evapotranspiration responses to water deficit across biomes using deep learning** *NEW PHYTOLOGIST*
  Giardina, F., Gentine, P., Konings, A. G., Seneviratne, S. I., Stocker, B. D.
  2023; 240 (3): 968-983
- **Global patterns of water storage in the rooting zones of vegetation** *NATURE GEOSCIENCE*
  Stocker, B. D. D., Tumber-Davila, S., Konings, A. G. G., Anderson, M. C. C., Hain, C., Jackson, R. B. B.
  2023
- **Global patterns of water storage in the rooting zones of vegetation.** *Nature geoscience*
  Stocker, B. D., Tumber-Dávila, S. J., Konings, A. G., Anderson, M. C., Hain, C., Jackson, R. B.
  2023; 16 (3): 250-256
- **Remotely Sensed Soil Moisture Can Capture Dynamics Relevant to Plant Water Uptake** *WATER RESOURCES RESEARCH*
  Feldman, A. F., Gianotti, D. J., Dong, J., Akbar, R., Crow, W. T., McColl, K. A., Konings, A. G., Nippert, J. B., Tumber-Davila, S., Holbrook, N. M., Rockwell, F. E., Scott, R. L., Reichle, et al
  2023; 59 (2)
- **Attributing Past Carbon Fluxes to CO2 and Climate Change: Respiration Response to CO2 Fertilization Shifts Regional Distribution of the Carbon Sink** *Global Biogeochemical Cycles*
  Quentin, G. R., Famiglietti, C. A., et al
  2023
- **Global net biome CO2 exchange predicted comparably well using parameter-environment relationships and plant functional types.** *Global change biology*
  Famiglietti, C. A., Worden, M., Quetin, G. R., Smallman, T. L., Dayal, U., Bloom, A. A., Williams, M., Konings, A. G.
  2022
- **Evapotranspiration frequently increases during droughts** *NATURE CLIMATE CHANGE*
  Zhao, M., Geruo, A., Liu, Y., Konings, A. G.
  2022

- **Can We Use the Water Budget to Infer Upland Catchment Behavior? The Role of Data Set Error Estimation and Interbasin Groundwater Flow** *WATER RESOURCES RESEARCH*
  Gordon, B. L., Crow, W. T., Konings, A. G., Dralle, D. N., Harpold, A. A.
  2022; 58 (9)
- **Canopy Height and Climate Dryness Parsimoniously Explain Spatial Variation of Unstressed Stomatal Conductance** *GEOPHYSICAL RESEARCH LETTERS*
  Liu, Y., Flournoy, O., Zhang, Q., Novick, K. A., Koster, R. D., Konings, A. G.
  2022; 49 (15)
- **Soil hydrology in the Earth system** *NATURE REVIEWS EARTH & ENVIRONMENT*
  Vereecken, H., Amelung, W., Bauke, S. L., Bogena, H., Brueggemann, N., Montzka, C., Vanderborght, J., Bechtold, M., Bloeschl, G., Carminati, A., Javaux, M., Konings, A. G., Kusche, et al
  2022; 3 (9): 573-587
- **Quantifying the Global Power Needed for Sap Ascent in Plants** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Quetin, G. R., Anderegg, L. D. L., Konings, A. G., Trugman, A. T.
  2022; 127 (8)
- **Climate change-induced peatland drying in Southeast Asia** *ENVIRONMENTAL RESEARCH LETTERS*
  Dadap, N. C., Cobb, A. R., Hoyt, A. M., Harvey, C. F., Feldman, A. F., Im, E., Konings, A. G.
  2022; 17 (7)
- **Intra-Specific Variability in Plant Hydraulic Parameters Inferred From Model Inversion of Sap Flux Data** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Lu, Y., Sloan, B., Thompson, S. E., Konings, A. G., Bohrer, G., Matheny, A., Feng, X.
  2022; 127 (6)
- **Historically inconsistent productivity and respiration fluxes in the global terrestrial carbon cycle.** *Nature communications*
  Jian, J., Bailey, V., Dorheim, K., Konings, A. G., Hao, D., Shiklomanov, A. N., Snyder, A., Steele, M., Teramoto, M., Vargas, R., Bond-Lamberty, B.
  2022; 13 (1): 1733
- **Confronting the water potential information gap.** *Nature geoscience*
  Novick, K. A., Ficklin, D. L., Baldocchi, D., Davis, K. J., Ghezzehei, T. A., Konings, A. G., MacBean, N., Raoult, N., Scott, R. L., Shi, Y., Sulman, B. N., Wood, J. D.
  2022; 15 (3): 158-164
- **Plant-water sensitivity regulates wildfire vulnerability.** *Nature ecology & evolution*
  Rao, K., Williams, A. P., Diffenbaugh, N. S., Yebra, M., Konings, A. G.
  2022
- **SIDE-FACING UHF-BAND RADAR SYSTEM TO MONITOR TREE WATER STATUS**
  Rao, K., Ulloa, Y. J., Bienert, N., Chiariello, N. R., Holtzman, N. M., Quetin, G. R., Peters, S. T., Winstein, K., Castelletti, D., Schroeder, D. M., Konings, A. G., IEEE
  IEEE.2022: 5559-5562
- **DEVELOPMENT OF SMAP RETRIEVALS FOR FORESTED REGIONS: SMAPVEX19-22 AND SMAPVEX22-BOREAL**
  Colliander, A., Cosh, M. H., Berg, A., Misra, S., Thomas, J., Bourgeau-Chavez, L., Kelly, V., Kraatz, S., Siqueira, P., Roy, A., Helgason, W., Magagi, R., Lakhankar, et al
  IEEE.2022: 4228-4231
- **Achieving Breakthroughs in Global Hydrologic Science by Unlocking the Power of Multisensor, Multidisciplinary Earth Observations** *AGU ADVANCES*
  Durand, M., Barros, A., Dozier, J., Adler, R., Cooley, S., Entekhabi, D., Forman, B. A., Konings, A. G., Kustas, W. P., Lundquist, J. D., Pavelsky, T. M., Rodell, M., Steele-Dunne, et al
  2021; 2 (4)
- **Atmospheric variability contributes to increasing wildfire weather but not as much as global warming.** *Proceedings of the National Academy of Sciences of the United States of America*
  Diffenbaugh, N. S., Konings, A. G., Field, C. B.
  2021; 118 (46)

- **Opportunities, challenges and pitfalls in characterizing plant water-use strategies** *FUNCTIONAL ECOLOGY*
  Kannenberg, S. A., Guo, J. S., Novick, K. A., Anderegg, W. R. L., Feng, X., Kennedy, D., Konings, A. G., Martinez-Vilalta, J., Matheny, A. M.
  2021
- **Detecting Forest Response to Droughts with Global Observations of Vegetation Water Content.** *Global change biology*
  Konings, A. G., Saatchi, S. S., Frankenberg, C., Keller, M., Leshyk, V., Anderegg, W. R., Humphrey, V., Matheny, A. M., Trugman, A., Sack, L., Agee, E., Barnes, M. L., Binks, et al
  2021
- **Interannual Variations of Vegetation Optical Depth are Due to Both Water Stress and Biomass Changes** *GEOPHYSICAL RESEARCH LETTERS*
  Konings, A. G., Holtzman, N. M., Rao, K., Xu, L., Saatchi, S. S.
  2021; 48 (16)
- **Extreme wet events as important as extreme dry events in controlling spatial patterns of vegetation greenness anomalies** *ENVIRONMENTAL RESEARCH LETTERS*
  Famiglietti, C. A., Michalak, A. M., Konings, A. G.
  2021; 16 (7)
- **Global Coordination in Plant Physiological and Rooting Strategies in Response to Water Stress** *GLOBAL BIOGEOCHEMICAL CYCLES*
  Liu, Y., Konings, A. G., Kennedy, D., Gentine, P.
  2021; 35 (7)
- **Global ecosystem-scale plant hydraulic traits retrieved using model-data fusion** *HYDROLOGY AND EARTH SYSTEM SCIENCES*
  Liu, Y., Holtzman, N. M., Konings, A. G.
  2021; 25 (5): 2399-2417
- **Optimal model complexity for terrestrial carbon cycle prediction** *BIOGEOSCIENCES*
  Famiglietti, C. A., Smallman, T., Levine, P. A., Flack-Prain, S., Quetin, G. R., Meyer, V., Parazoo, N. C., Stettz, S. G., Yang, Y., Bonal, D., Bloom, A., Williams, M., Konings, et al
  2021; 18 (8): 2727-2754
- **Promoting Connectivity of Network-Like Structures by Enforcing Region Separation.** *IEEE transactions on pattern analysis and machine intelligence*
  Oner, D., Kozinski, M., Citraro, L., Dadap, N. C., Konings, A. G., Fua, P.
  2021; PP
- **Satellite Observations of the Tropical Terrestrial Carbon Balance and Interactions With the Water Cycle During the 21st Century** *REVIEWS OF GEOPHYSICS*
  Worden, J., Saatchi, S., Keller, M., Bloom, A., Liu, J., Parazoo, N., Fisher, J. B., Bowman, K., Reager, J. T., Fahy, K., Schimel, D., Fu, R., Worden, et al
  2021; 59 (1)
- **Patterns of plant rehydration and growth following pulses of soil moisture availability** *BIOGEOSCIENCES*
  Feldman, A. F., Gianotti, D., Konings, A. G., Gentine, P., Entekhabi, D.
  2021; 18 (3): 831-847
- **Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration** *NATIONAL SCIENCE REVIEW*
  Ciais, P., Yao, Y., Gasser, T., Baccini, A., Wang, Y., Lauerwald, R., Peng, S., Bastos, A., Li, W., Raymond, P. A., Canadell, J. G., Peters, G. P., Andres, et al
  2021; 8 (2)
- **Empirical estimates of regional carbon budgets imply reduced global soil heterotrophic respiration.** *National science review*
  Ciais, P., Yao, Y., Gasser, T., Baccini, A., Wang, Y., Lauerwald, R., Peng, S., Bastos, A., Li, W., Raymond, P. A., Canadell, J. G., Peters, G. P., Andres, et al
  2021; 8 (2): nwaa145
- **L-band vegetation optical depth as an indicator of plant water potential in a temperate deciduous forest stand** *BIOGEOSCIENCES*
  Holtzman, N. M., Anderegg, L. D. L., Kraatz, S., Mavrovic, A., Sonnentag, O., Pappas, C., Cosh, M. H., Langlois, A., Lakhankar, T., Tesser, D., Steiner, N., Colliander, A., Roy, et al
  2021; 18 (2): 739-753

- **Global-scale assessment and inter-comparison of recently developed/reprocessed microwave satellite vegetation optical depth products** *REMOTE SENSING OF ENVIRONMENT*
  Li, X., Wigneron, J., Frappart, F., Fan, L., Ciais, P., Fensholt, R., Entekhabi, D., Brandt, M., Konings, A. G., Liu, X., Wang, M., Al-Yaari, A., Moisy, et al
  2021; 253

- **Leaf surface water, not plant water stress, drives diurnal variation in tropical forest canopy water content.** *The New phytologist*
  Xu, X. n., Konings, A. G., Longo, M. n., Feldman, A. n., Xu, L. n., Saatchi, S. n., Wu, D. n., Wu, J. n., Moorcroft, P. n.
  2021

- **Drainage Canals in Southeast Asian Peatlands Increase Carbon Emissions** *AGU Advances*
  Dadap, N. C., Hoyt, A. M., Cobb, A. R., Oner, D., Kozinski, M., Fua, P. V., Rao, K., Harvey, C. F., Konings, A. G.
  2021; 2 (1): 1-14

- **Lagged effects regulate the inter-annual variability of the tropical carbon balance** *BIOGEOSCIENCES*
  Bloom, A., Bowman, K. W., Liu, J., Konings, A. G., Worden, J. R., Parazoo, N. C., Meyer, V., Reager, J. T., Worden, H. M., Jiang, Z., Quetin, G. R., Smallman, T., Exbrayat, et al
  2020; 17 (24): 6393–6422

- **Interannual variability of ecosystem iso/anisohydry is regulated by environmental dryness.** *The New phytologist*
  Wu, G., Guan, K., Li, Y., Novick, K. A., Feng, X., McDowell, N. G., Konings, A. G., Thompson, S. E., Kimball, J. S., De Kauwe, M. G., Ainsworth, E. A., Jiang, C.
  2020

- **SMAP Detects Soil Moisture Under Temperate Forest Canopies** *GEOPHYSICAL RESEARCH LETTERS*
  Colliander, A., Cosh, M. H., Kelly, V. R., Kraatz, S., Bourgeau-Chavez, L., Siqueira, P., Roy, A., Konings, A. G., Holtzman, N., Misra, S., Entekhabi, D., O'Neill, P., Yueh, et al
  2020; 47 (19)

- **Divergent forest sensitivity to repeated extreme droughts** *NATURE CLIMATE CHANGE*
  Anderegg, W. R. L., Trugman, A. T., Badgley, G., Konings, A. G., Shaw, J.
  2020

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