

IIASA at AGU 2020

Below lists related AGU sessions and papers featuring IIASA researchers, alumni, and former Young Scientists Summer Program (YSSP) Participants.

At this year's meeting, 3 colleagues will be honored with awards and named lecturers:

- [Yoshihide Wada](#), IIASA Acting Water Program Director, will be presented with the [James B. Macelwane Medal 2020](#).
- [Gordon B. Bonan](#), researcher at the National Center for Atmospheric Research and 1987 YSSP, will give the [Tyndall History of Global environmental Change Lecture](#).
- [Tracey Holloway](#), professor at the University of Wisconsin-Madison and long-time IIASA collaborator, will receive the [Atmospheric Sciences Ascent Award](#).

More information regarding the event may be found here, and for the full program please visit the [AGU Program page](#).

Monday, 7 December

PAPERS

[B001-0001 - Uncertainty in carbon budget estimates due to internal climate variability](#)

Joeri Rogelj, Energy Program

[GC007-0002 - A mathematical programming approach for downscaling projections from a land use change model](#)

Aline Soterroni, Ecosystem Services and Management (ESM) Program

Tuesday, 8 December

POSTER

[H030 - Advances in Modeling and Remote Sensing of Integrated Climate–Hydrology–Human Interactions Toward Sustainable Food–Energy–Water Systems II Posters](#)

Convener and Chair: Yoshihide Wada, Water Program

PAPERS

[A038-0011 - Impact of Multiple Vegetation Inputs on Biogenic VOC Emissions over the Korean Peninsula](#)

Younha Kim, Air Quality and Greenhouse Gases (AIR) Program, YSSP 2014

[B019-0002 - Carbon cycle feedbacks of CMIP6 models under overshoot scenarios](#)

Thomas Glasser, ESM Program

[H025-03 - GeoICOLD, a georeferenced global dam and reservoir dataset based on the registry of the International Commission on Large Dams](#)

Yoshihide Wada, Water Program

[H025-07 - Quantifying and attributing recent changes in global lake and reservoir storage using satellite observations and hydrological modeling](#)

Yoshihide Wada, Water Program

[H030-0010 - Response of total runoff to climate change in arid Northwest China](#)

Yoshihide Wada, Water Program

Wednesday, 9 December

ORAL

[U006 - Modeling Multisector Dynamics to Inform Adaptive Pathways](#)

Convener: Yoshihide Wada, Water Program

[GC032 - Tyndall History of Global Environmental Change Lecture](#)

[GC032-01 Seeing the Forest for the Trees: Forest, Climate Change, and Our Future](#)

Gordon B. Bonan, National Center for Atmospheric Research, YSSP 1987

[H051 - Advances in Modeling and Remote Sensing of Integrated Climate–Hydrology–Human Interactions Toward Sustainable Food–Energy–Water Systems I](#)

Convener and Chair: Yoshihide Wada, Water Program

PAPERS

[A057-01 - Current and future global climate impacts resulting from COVID-19](#)

Joeri Rogelj, Christopher James Smith, Energy Program

[A066-0007 - A Green Energy Recovery After COVID-19 Pandemic Can Reduce Costs Of Climate Change Mitigation](#)

Adriano Vinca, Jarmo Kikstra, Francesco Lovat, Keywan Riahi, Bas Van Ruijven, Behnam Zakeri, Joeri Rogelj, Energy Program

Benigna Boza-Kiss, Charlie Wilson, Advanced Systems Analysis (ASA) Program

[B027-09 - Permafrost Carbon Emissions from a Warming Arctic: What are the Implications for International Climate Goals?](#)

Thomas Gasser, ESM Program

[GC035-03 - Global Hunger and Climate Change Adaptation through International Trade](#)

Charlotte Janssens, Tamas Krisztin, Stefan Frank, David Leclere, Hugo Valin, Petr Havlik, Justin Baker, ESM Program

Tomoko Hasegawa, Ritsumeikan University, YSSP 2009

Erwin Schmid, BOKU, IIASA alum and Austrian NMO Committee member

[GC040-0002 - The Impact of Risk Transfer Mechanisms on Smallholder Farmer Climate Adaptation](#)

Matthias Wildemeersch, ASA Program

Nicolas Choquette-Levy, Princeton University, YSSP 2019

Simon Levin, Princeton University, former Council Member for the US and former US Committee Chair

[H051-09 - Estimating Spatially Explicit Irrigation Water Use Based on Remotely Sensed Evapotranspiration and Modeled Root Zone Soil Moisture](#)

Yoshihide Wada, Water Program

[H058-0005 - Trade-offs of large-scale bioenergy plantations with future water availability](#)

Sylvia Tramberend, Peter Greve, Yoshihide Wada, Water Program

Fabian Stenzel, Potsdam Institute for Climate Impact Research, YSSP 2019

Naota Hanasaki, National Institute for Environmental Studies, IIASA alum

Thursday, 10 December

POSTER

[GC057 - Multisector Dynamics: Energy–Water–Land Interactions at Multiple Scales II Posters](#)

Conveners: Adriano Vinca, Energy Program and Zarrar Khan, Pacific Northwest National Laboratory, YSSP 2015

PAPERS

[A077-05 - A Model of Engaged Science: Experience from the NASA Health and Air Quality Applied Sciences Team](#)

Tracey Holloway, University of Wisconsin Madison, IIASA collaborator, recipient of the [Atmospheric Sciences Ascent Award](#)

[A111-0019 - Air Quality and Human Health Effects of Global Gasoline and Diesel Sectors](#)

Chris Heyes, AIR Program

Kandic Harper, Yale School of Forestry and Environmental Studies, YSSP 2013

[B041-04 - Moving Beyond the Incorrect but Useful Paradigm: Re-envisioning Forests in Earth System Models](#)

Gordon B. Bonan, National Center for Atmospheric Research, YSSP 1987

[P030-08 - Generalizing biogeochemical models for astrobiology](#)

Simon Levin, Princeton University, former Council Member for the US and former US Committee Chair

Friday, 11 December

ORAL

[GC064 - Multisector Dynamics: Energy–Water–Land Interactions at Multiple Scales I](#)

Conveners: Adriano Vinca, Energy Program and Zarrar Khan, Pacific Northwest National Laboratory, YSSP 2015

PAPERS

[A111-0017 - Revisiting exposure-response functions for six morbidity endpoints associated with short-term PM2.5 exposures and an application of the cost-and-benefit of air pollution control in Asia using an integrated assessment framework](#)

Gregor Kieseewetter, Fabian Wagner, AIR Program
Muye Ru, Duke University, YSSP 2019

[A113-0005 - Energy Budget Constraints on the Time History of Aerosol Radiative Forcing](#)

Christopher James Smith, Energy Program

[B067-02 - Consolidated synthesis of CO₂, CH₄ and N₂O time series 1990-2018 for EU27 and UK](#)

Wilfried Winiwarter, Lena Höglund-Isaksson, AIR Program
Juraj Balkovic, ESM Program
Francesco Tubiello, Food and Agriculture Organization of the United Nations, IIASA alum

[GC075-02 - Multi-Country Modeling of Sustainable Land-Use Futures for North America](#)

Justin Baker, ESM Program
Hisham Zeriffi, University of British Columbia, YSSP 2003
Aline Mosnier, Sustainable Development Solutions Network, IIASA alum

[GC076-06 - Global Agriculture: Variety Adaptation Potentials and Limitations](#)

Christian Folberth, ESM Program
Wenfeng Liu, EAWAG Swiss Federal Institute of Aquatic Science and Technology, YSSP 2015

[GC077-07 - A framework for understanding and modelling the links between food, water and energy in the rapidly urbanizing city of Pune, India](#)

Mikhail Smilovic, Taher Kahil, Peter Burek, Yoshihide Wada, Water Program

Saturday, 12 December

[U015-15 - The social-ecological hotspots of changing global freshwater availability](#)

Yoshihide Wada, Water Program

PAPERS

[A130-05 - The Impact of Time Varying Feedbacks on Global and Regional Scale Temperature Projections](#)

Christopher James Smith, Energy Program

[GC079-03 - Social Cost of Carbon: Revisit from a Systems Analysis Perspective](#)

Nikolay Khabarov, Michael Obersteiner, Alexey Smirnov, ESM Program

[GC079-04 - Stringent mitigation substantially reduces risk of unprecedented near-term warming rates](#)

Christopher James Smith, Energy Program

Monday, 14 December

PAPERS

[H139-0003 - Preliminary Assessment of Global Lake Water Stress Due to Human Consumption of Renewable Water Resources](#)

Yoshihide Wada, Water Program

[H152-05 - Co-development of transformation pathways for the integrated management of water-energy-land resources in the Zambezi basin](#)

Barbara Willaarts, Taher Kahil, Peter Burek, Ting Tang, Simon Langan, Yoshihide Wada, Water Program

Amanda Palazzo, Michiel Van Dijk, Peter Havlik, ESM Program

Piotr Magnuszewski, RISK Program

Tuesday, 15 December

PAPERS

[A178-0022 - Mitigation potential of air pollution and greenhouse gas emissions from commercial building sector of China due to efficient and climate-friendly cooling](#)

Pallav Purohit, AIR Program

[A178-0024 - Effect of the Seoul Metropolitan Area Air Quality Policy on the Reduction of Emissions in Mobile Sources](#)

Younha Kim, AIR Program, YSSP 2014

Jinseok Kim, Konkuk University, IIASA alum

[GC094-05 - Leveraging new open-source modeling tools to rapidly prototype pathways for achieving SDG7 and mid-century climate targets in Pakistan | \[Presentation\]\(#\)](#)

Muhammad Awais, Behnam Zakeri, Keywan Riahi, Energy Program

Simon Parkinson, Water Program

Madeleine McPherson, University of Victoria, YSSP 2014

[GC107-01 - Irrigation in the Earth System: A new transdisciplinary effort to enhance understanding of coupled natural-human systems](#)

Yoshihide Wada, Water Program

[H179-07 - Water availability, demand and use in the hydrological model CWatM, the example of the Bhima basin in India with a focus on groundwater](#)

Mikhail Smilovic, Luca Guillaumot, Peter Burek, Yoshihide Wada, Water Program

Wednesday, 16 December

PAPERS

[A201-02 - Rapid reduction in black carbon emissions from China: evidence from 2009–2020 observations on Fukue Island, Japan](#)

Zbigniew Klimont, AIR Program

[B116-0005 - Characterizing land use impacts on carbon stocks and tree cover in the tropics](#)

Steffen Fritz, ESM Program

Manan Bhan, BOKU, YSSP 2019

Thursday, 17 December

PAPERS

[A248-03 - The Effect of Anthropogenic Aerosols on the Aleutian Low](#)

Christopher James Smith, Energy Program