

I Reviewed A Top Downloaded/Cited Paper FAQs

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What is considered a top downloaded paper?

Top downloaded papers are those that were published between January 2020 and December 2020 and generated the most downloads for an AGU journal. We proudly recognize the contributions of those who reviewed the top 10% of a journal's most downloaded articles within this time frame.

What is considered a top cited paper?

Top cited papers are the journal's five most often cited articles published between January 2019 and December 2020.

How did you know I reviewed one of the above listed papers?

AGU used peer review records to identify volunteers who reviewed these top downloaded and top cited submissions. AGU adheres to strict confidentiality of the peer review.

Are these the top downloaded or cited papers of all time?

No. These are the top cited papers published between January 2019 and December 2020, and the top downloaded papers from January 2020-December 2020.

Note: AGU Advances articles were not included in the top cited author recognition campaign this year, as this is based around citations in the Web of Science. However, AGU Advances articles will be included in the top downloaded author recognition campaign in the summer of 2022.

Where can I see a list of all the top downloaded and top cited papers from this campaign?

Please see the full list at the end of this FAQ.

I have more questions. Who should I contact?

Please direct any questions to publications@agu.org

List of Top Cited Papers

Ocean-Scale Interactions From Space

Empirical Phase Calibration for Multistatic Specular Meteor Radars Using a Beamforming Approach

The GEDI Simulator: A Large-Footprint Waveform Lidar Simulator for Calibration and Validation of Spaceborne Missions

Hillslope Hydrology in Global Change Research and Earth System Modeling

Diverse Mycorrhizal Associations Enhance Terrestrial C Storage in a Global Model

Power Law Size Distributions in Geoscience Revisited

Deep-Sea Oxygen Depletion and Ocean Carbon Sequestration During the Last Ice Age

PhaseLink: A Deep Learning Approach to Seismic Phase Association

Changes in Aerosol Chemistry From 2014 to 2016 in Winter in Beijing: Insights From High-Resolution Aerosol Mass Spectrometry

Global-Scale ULF Waves Associated With SSC Accelerate Magnetospheric Ultrarelativistic Electrons

Merging of Storm Time Midlatitude Traveling Ionospheric Disturbances and Equatorial Plasma Bubbles

An Overview of Global Leaf Area Index (LAI): Methods, Products, Validation, and Applications

The Morphology of the Topside Martian Ionosphere: Implications on Bulk Ion Flow

Reconnaissance Basement Geology and Tectonics of South Zealandia

Thirty Years of Regional Climate Modeling: Where Are We and Where Are We Going next?

Microbial Community Responses to Vanadium Distributions in Mining Geological Environments and Bioremediation Assessment

A Global Plate Model Including Lithospheric Deformation Along Major Rifts and Orogens Since the Triassic

New Particle Formation in the Atmosphere: From Molecular Clusters to Global Climate

The Response of Earth's Electron Radiation Belts to Geomagnetic Storms: Statistics From the Van Allen Probes Era Including Effects From Different Storm Drivers

Linking Structural and Transport Properties in Three-Dimensional Fracture Networks

Forecasting the Structure and Orientation of Earthbound Coronal Mass Ejections

Structural and Geochronological Constraints on Devonian Suprasubduction Tectonic Switching and Permian Collisional Dynamics in the Chinese Altai, Central Asia

Magmatic Response to Subduction Initiation: Part 1. Fore-arc Basalts of the Izu-Bonin Arc From IODP Expedition 352

Neogene Expansion of the Qilian Shan, North Tibet: Implications for the Dynamic Evolution of the Tibetan Plateau

Mineral-Filled Fractures as Indicators of Multigenerational Fluid Flow in the Pahrump Hills Member of the Murray Formation, Gale Crater, Mars

Global Estimates of Inorganic Nitrogen Deposition Across Four Decades

Improvements in the GISTEMP Uncertainty Model

High-Resolution Field Mapping and Analysis of the August-October 2016 Coseismic Surface Faulting (Central Italy Earthquakes): Slip Distribution, Parameterization, and Comparison With Global Earthquakes

Measurement of Ionospheric Total Electron Content Using Single-Frequency Geostationary Satellite Observations

Earthquake-Induced Chains of Geologic Hazards: Patterns, Mechanisms, and Impacts

Very Strong. Atmospheric Methane Growth in the 4 Years 2014-2017: Implications for the Paris Agreement

Reconstruction of Global Lightning Activity Based on Schumann Resonance Measurements: Model Description and Synthetic Tests

Modes of Berm and Beachface Recovery Following Storm Reset: Observations Using a Continuously Scanning Lidar

Variability in the Northern North Atlantic and Arctic Oceans Across the Last Two Millennia: A Review

Bigger Tides, Less Flooding: Effects of Dredging on Barotropic Dynamics in a Highly Modified Estuary

Heterogeneous Influence of Glacier Morphology on the Mass Balance Variability in High Mountain Asia

A Rapid, Deterministic Age-Depth Modeling Routine for Geological Sequences With Inherent Depth Uncertainty

GlobSed: Updated Total Sediment Thickness in the World's Oceans

The Teleconnection of El Niño Southern Oscillation to the Stratosphere

An Ensemble Data Set of Sea Surface Temperature Change From 1850: The Met Office Hadley Centre HadSST.4.0.0.0 Data Set

Consistency Evaluation of Precipitable Water Vapor Derived From ERA5, ERA-Interim, GNSS, and Radiosondes Over China

Premature Mortality Due to PM_{2.5} Over India: Effect of Atmospheric Transport and Anthropogenic Emissions

Community-Level Responses to Iron Availability in Open Ocean Plankton Ecosystems

The Role of Ekman Currents, Geostrophy, and Stokes Drift in the Accumulation of Floating Microplastic

Effects of Improved O-17 Correction on Interlaboratory Agreement in Clumped Isotope Calibrations, Estimates of Mineral-Specific Offsets, and Temperature Dependence of Acid Digestion Fractionation

Impact of Deadly Dust Storms (May 2018) on Air Quality, Meteorological, and Atmospheric Parameters Over the Northern Parts of India

Controls on Carbonate System Dynamics in a Coastal Plain Estuary: A Modeling Study
Primary Productivity Was Limited by Electron Donors Prior to the Advent of Oxygenic Photosynthesis

Generic Magnetic Field Intensity Profiles of Interplanetary Coronal Mass Ejections at Mercury, Venus, and Earth From Superposed Epoch Analyses

MESSENGER Observations and Global Simulations of Highly Compressed Magnetosphere Events at Mercury

Deep Convolutional Encoder-Decoder Networks for Uncertainty Quantification of Dynamic Multiphase Flow in Heterogeneous Media

Global and Regional Increase of Precipitation Extremes Under Global Warming

Molecular Hysteresis: Hydrologically Driven Changes in Riverine Dissolved Organic Matter Chemistry During a Storm Event

Meeting User Needs for Sea Level Rise Information: A Decision Analysis Perspective

Th-230 Normalization: New Insights on an Essential Tool for Quantifying Sedimentary Fluxes in the Modern and Quaternary Ocean

MERIT Hydro: A High-Resolution Global Hydrography Map Based on Latest Topography Dataset

A Multi-Phase Mass Flow Model

High Climate Sensitivity in the Community Earth System Model Version 2 (CESM2)

THEMIS Observations of the 2018 Mars Global Dust Storm

A High-Fidelity Benthic Stable Isotope Record of Late Cretaceous-Early Eocene Climate Change and Carbon-cycling

A Global Perspective on Microplastics

Bounding Global Aerosol Radiative Forcing of Climate Change

Bayesian Calibration of the Mg/Ca Paleothermometer in Planktic Foraminifera

A Lacustrine Paleoenvironment Recorded at Vera Rubin Ridge, Gale Crater: Overview of the Sedimentology and Stratigraphy Observed by the Mars Science Laboratory Curiosity Rover

The Challenge of Machine Learning in Space Weather: Nowcasting and Forecasting

Rupture Of Veined Granite In Polyaxial Compression: Insights From Three-Dimensional Discrete Element Method Modeling

Effects of Increasing Aridity on Ambient Dust and Public Health in the U.S. Southwest Under Climate Change

Global Bathymetry and Topography at 15 Arc Sec: SRTM15+

Stability of the Atlantic Meridional Overturning Circulation: A Review and Synthesis

Geostatistical Modeling to Capture Seismic-Shaking Patterns From Earthquake-Induced Landslides

Causes of Higher Climate Sensitivity in CMIP6 Models

The Generic Mapping Tools Version 6

The Effects of Earthquakes and Fluids on the Metamorphism of the Lower Continental Crust

MESSENGER Observations of Disappearing Dayside Magnetosphere Events at Mercury

Influence of Near-Surface Currents on the Global Dispersal of Marine Microplastic

The Community Earth System Model Version 2 (CESM2)

The Exceptional 2018 European Water Seesaw Calls for Action on Adaptation

Meteoroids at the Moon: Orbital Properties, Surface Vaporization, and Impact Ejecta Production

A 21st Century View of the March 1989 Magnetic Storm

A Review of the Role of the Atlantic Meridional Overturning Circulation in Atlantic Multidecadal Variability and Associated Climate Impacts

Temporal and Spatial Evolutions of a Large Sunspot Group and Great Auroral Storms Around the Carrington Event in 1859

Concurrent 2018 Hot Extremes Across Northern Hemisphere Due to Human-Induced Climate Change

Analysis and Mapping of an Updated Terrestrial Heat Flow Data Set

Evaluation of CMIP6 DECK Experiments With CNRM-CM6-1

Widespread Initiation, Reactivation, and Acceleration of Landslides in the Northern California Coast Ranges due to Extreme Rainfall

Observed Impacts of Anthropogenic Climate Change on Wildfire in California

Martian Year 34 Column Dust Climatology from Mars Climate Sounder Observations: Reconstructed Maps and Model Simulations

Disentangling Changes in the Spectral Shape of Chlorophyll Fluorescence: Implications for Remote Sensing of Photosynthesis

Expansion of Coccidioidomycosis Endemic Regions in the United States in Response to Climate Change

The July 2019 Ridgecrest, California, Earthquake Sequence: Kinematics of Slip and Stressing in Cross-Fault Ruptures

Present-Day Crustal Deformation of Continental China Derived From GPS and Its Tectonic Implications

How Green Transition of Energy System Impacts China's Mercury Emissions

Surface Wave Reduction in Antenna Arrays Using Metasurface Inclusion for MIMO and SAR Systems

Estimating the Health-Related Costs of 10 Climate-Sensitive U.S. Events During 2012

The Response in Air Quality to the Reduction of Chinese Economic Activities During the COVID-19 Outbreak

Impact of Coronavirus Outbreak on NO₂ Pollution Assessed Using TROPOMI and OMI Observations

The DOE E3SM Coupled Model Version 1: Overview and Evaluation at Standard Resolution

The Community Land Model Version 5: Description of New Features, Benchmarking, and Impact of Forcing Uncertainty

Developments in the MPI-M Earth System Model version 1.2 (MPI-ESM1.2) and Its Response to Increasing CO₂

Spatial-Temporal Variation of Lake Surface Water Temperature and Its Driving Factors in Yunnan-Guizhou Plateau

List of Top Downloaded Papers

Sea level rise in New Zealand: The effect of vertical land motion on century-long tide gauge records in a tectonically active region

Planktic foraminiferal test size and weight response to the late Pliocene environment

Ionospheric tilt measurements: application to TID climatology study

The Advanced Indian MST Radar (AIR): System Description and Sample Observations

Radio propagation measurements and modelling for standardisation of the site general path loss model in ITU recommendations for 5G wireless networks

ISC-EHB 1964-2016, an Improved Dataset for Studies of Earth Structure and Global Seismicity

Assessment of CMIP6 Cloud Fraction and Comparison With Satellite Observations

The Henkel Petrophysical Plot: Mineralogy and Lithology from Physical Properties

A Review of Potential Public Health Impacts Associated with the Global Dairy Sector

Causes of higher climate sensitivity in CMIP6 models

Submarine groundwater and vent discharge in a volcanic area associated with coastal acidification

Data Assimilation for Climate Research: Model Parameter Estimation of Large Scale Condensation Scheme

The role of the SO_2 radiative effect in sustaining the volcanic winter and soothing the Toba impact on climate.

Nonlinear wave growth analysis of whistler-mode chorus generation regions based on coupled MHD and advection simulation of the inner magnetosphere

Flying Through Uncertainty

A Rainfall-Runoff Model with LSTM-based Sequence-to-Sequence Learning

Enhanced carbon uptake and reduced methane emissions in a newly restored wetland

Illuminating water cycle modifications and Earth System resilience in the Anthropocene

Does Information Theory Provide a New Paradigm for Earth Science? Hypothesis Testing

Processes driving global interior ocean pH distribution

CMIP5 models predict rapid and deep soil warming over the 21st century

Why we can no longer ignore consecutive disasters

La Niña's Diminishing Fingerprint on the Central Indian Summer Monsoon

A Global Perspective on Microplastics

The nitrogen isotopic composition of tissue and shell-bound organic matter of planktic foraminifera in Southern Ocean surface waters

Comparative rock magnetic study of Eocene volcanogenic and sedimentary rocks from Yunnan, southeastern Tibetan Plateau, and its geological implications

Present-Day Crustal Deformation of Continental China Derived from GPS and its Tectonic Implications

Climate adaptation as a control problem: Review and perspectives on dynamic water resources planning under uncertainty

Integrating the water planetary boundary with water management from local to global scales

September 2019 Antarctic sudden stratospheric warming: quasi-6-day wave burst and ionospheric effects

Changes in extreme climate events in China under 1.5°C-4°C global warming targets: projections using an ensemble of regional climate model simulations

Shelf-break upwelling and productivity over the North Kenya Banks: the importance of large-scale ocean dynamics

What can we learn from X-ray fluorescence core scanning data? A paleo-monsoon case study

On the imbalance and response time of glaciers in the European Alps

Value at Induced Risk: Injection-induced seismic risk from low-probability, high-impact events

A Mathematical Model for the Release, Transport, and Retention of Per- and Polyfluoroalkyl Substances (PFAS) in the Vadose Zone

Who are we measuring and modeling for? Supporting multi-level decision-making in watershed management

Random Fields Simplified: Preserving Marginal Distributions, Correlations, and Intermittency, with applications from rainfall to humidity

Sensitivity analysis-based automatic parameter calibration of the variable infiltration capacity (VIC) model for streamflow simulations over China

Predicting the Downward and Surface Influence of the February 2018 and January 2019 Sudden Stratospheric Warming events in Subseasonal to Seasonal (S2S) Models

Initial Results from the Super-Parameterized E3SM

Methane mitigation: methods to reduce emissions, on the path to the Paris Agreement.

Agricultural Development and Land-Use Change in India: A Scenario Analysis of Trade-Offs Between UN Sustainable Development Goals (SDGs)

Africa's Climate Response to Solar Radiation Management with Stratospheric Aerosol

Causes and Climatic Consequences of the Impact Winter at the Cretaceous-Paleogene Boundary

Rapid export of waters formed by convection near the Irminger Sea's western boundary

Spatiotemporal properties of sub-Rayleigh and supershear ruptures inferred from full-field dynamic imaging of laboratory experiments

100-year Geoelectric Hazard Analysis for the U.S. High-Voltage Power Grid

Improving the predictive skill of a distributed hydrological model by calibration on spatial patterns with multiple satellite datasets

The Community Earth System Model version 2 (CESM2)

Seasonal and spatial features of barotropic and baroclinic tides in the northwestern South China Sea

Influence of barotropic tidal currents on transport and accumulation of floating microplastics in the global open ocean

Using the aa index over the last 14 solar cycles to characterize extreme geomagnetic activity.

Probing slow earthquakes with deep learning

Using Boulder Tracks as a Tool to Understand the Bearing Capacity of Permanently Shadowed Regions of the Moon.

On the broadband instrument response of fiber-optic DAS arrays

Intensification of the Atlantic Water supply to the Arctic Ocean through Fram Strait induced by Arctic sea ice decline

Multi-decadal basal melt rates and structure of the Ross Ice Shelf, Antarctica using airborne ice penetrating radar

Upper Plate Stress Controls the Distribution of Mariana Arc Volcanoes

Influence of the thickness of the overriding plate on convergence zone dynamics

The Atlantic meridional overturning circulation in high resolution models

Phase-coherent amplification of ocean swell over submarine canyons

Adiabatic Invariants Calculations for Cluster Mission: A Long-term Product for Radiation Belts Studies

²³⁰Th normalization: New insights on an essential tool for quantifying sedimentary fluxes in the modern and Quaternary ocean

Citizen scientists discover a new auroral form: Dunes provide insight into the upper atmosphere

The Central Amazon biomass sink under current and future atmospheric CO₂: Predictions from big-leaf and demographic vegetation models

Present-day vertical land motion of Australia from GPS observations and geophysical models

Many commonly used rainfall-runoff models lack long, slow dynamics: implications for runoff projections

Effects of sea salt aerosol emissions for Marine Cloud Brightening on atmospheric chemistry: Implications for radiative forcing

Particulate organic matter dynamics in a permafrost headwater stream and the Kolyma River mainstem

Automated methods for detecting volcanic deformation using Sentinel-1 InSAR time series illustrated by the 2017-2018 unrest at Agung, Indonesia

The origins of space radio and plasma wave research at the University of Iowa

ML-Helio: an emerging community at the intersection between Heliophysics and Machine Learning

Plume-induced subduction initiation: single- or multi-slab subduction?

A major collapse of Kangerlussuaq Glacier's ice tongue between 1932-1933 in East Greenland

SPEAR - the next generation GFDL modeling system for seasonal to multidecadal prediction and projection

Pluto's beating heart regulates the atmospheric circulation: results from high resolution and multi-year numerical climate simulations

Characteristics of the flank magnetopause: MMS results

Suprathermal Fe in the Earth's plasma environment: Cluster RAPID observations

Monsoons, upwelling and the deoxygenation of the northwestern Indian Ocean in response to Middle to Late Miocene global climatic shifts

Future interactions between sea level rise, tides and storm surges in the world's largest urban area

Analog forecasting of extreme-causing weather patterns using deep learning

Evaluation of Evaporation Climatology for the Congo Basin Wet Seasons in Eleven Global Climate Models

Present-day Greenland Ice Sheet climate and surface mass balance in CESM2

Evolution of an atmospheric Kármán vortex street from high-resolution satellite winds: Guadalupe Island case study

Long-term Statistics of Observed Bubble Depth versus Modeled Wave Dissipation

Sub-daily scale chemical variability in a *Torreites sanchezi* rudist shell: Implications for rudist paleobiology and the Cretaceous day-night cycle

Mapping and Understanding Patterns of Air Quality Using Satellite Data and Machine Learning

Airborne mapping reveals emergent power law of Arctic methane emissions

Sources of uncertainty in regional and global terrestrial CO₂-exchange estimates

Space Weather Challenge And Forecasting Implications Of Rossby Waves

Development, productivity and seasonality of living planktonic foraminiferal faunas and *Limacina helicina* in an area of intense methane seepage in the Barents Sea

Carbon cycling in the world's deepest blue hole

Forecasting Megaelectron-Volt Electrons inside Earth's Outer Radiation Belt: PreMeV 2.0 Based on Supervised Machine Learning Algorithms

Large scale assessment of delayed groundwater responses to drought

Structural controls on rupture extent of recent Sumatran Fault Zone earthquakes, Indonesia

Urban Seismic Site Characterization by Fiber-Optic Seismology

Early Ground-Based Work by Auroral Pioneer Carl Størmer on the High Altitude Detached Subauroral Arcs now known as "STEVE"

Controls on rift faulting in the North Basin of the Malawi (Nyasa) Rift, East Africa

Causal effect of impervious cover on annual flood magnitude for the United States

A pre-industrial sea-level rise hotspot along the Atlantic coast of North America

Global-Scale Full-Waveform Ambient Noise Inversion

Magmatic and sedimentary structure beneath the Klyuchevskoy Volcanic Group, Kamchatka, from Ambient Noise Tomography

Crustal-scale sheath folding at HP conditions in an exhumed Alpine subduction zone (Tauern Window, Eastern Alps)

Coastal erosion variability at the southern Laptev Sea linked to winter sea ice and the Arctic Oscillation

Machine Learning for Stochastic Parameterization: Generative Adversarial Networks in the Lorenz '96 Model

Buffered, incomplete, and shredded: The challenges of reading an imperfect stratigraphic record

Centennial Challenges: Quantifying nutrient budgets to inform sustainable nutrient management

Tomographic Imaging of Traveling Ionospheric Disturbances using GNSS and Geostationary Satellite Observations

Where is the bottom of a watershed?

Numerical Simulations of Laboratory-Scale, Hypervelocity-Impact Experiments for Asteroid-Deflection Code Validation

Deriving Surface Ages on Mars using Automated Crater Counting

Poleward shift of the major ocean gyres detected in a warming climate

Effective fluid bulk modulus in the partially-saturated rock and the amplitude dispersion effects

A Three Year Sample of Almost 1600 Elves Recorded Above South America by the Pierre Auger Cosmic-Ray Observatory

Observations, meteorites, and models: A pre-flight assessment of the composition and formation of (16) Psyche

Olivine-Carbonate Mineralogy of the Jezero Crater Region

Subsurface radiation environment of Mars and its implication for shielding protection of future habitats

Debates - Does Information Theory provide a new paradigm for Earth Science? Causality, interaction, and feedback

Debates - Does Information Theory Provide a New Paradigm for Earth Science?

Debates - Does Information Theory provide a new paradigm for Earth Science? Emerging Concepts and Pathways of Information Physics

Urban renewal can mitigate urban heat islands

Active fault scarps in southern Malawi and their implications for the distribution of strain in incipient continental rifts

Challenges to Understanding the Earth's Ionosphere and Thermosphere

Plasma waves in space: the importance of properly accounting for the measuring device

A century of reduced ENSO variability during the Medieval Climate Anomaly

Radiocarbon Evidence for the Contribution of the Southern Indian Ocean to the Evolution of Atmospheric CO₂ over the last 32,000 years

A method for automatic detection of plasma depletions by using GNSS measurements

FM Broadcast Monitoring Using Artificial Intelligence

Elastic Impact Consequences for High-Frequency Earthquake Ground Motion

Selective adsorption of terrestrial dissolved organic matter to inorganic surfaces along a boreal inland water continuum

Water Governance Contribution to Water and Sanitation Access Equality in Developing Countries

Anthropogenic Aerosols Significantly Reduce Mesoscale Convective System Occurrences and Precipitation over Southern China in April

Atmospheric aridity and apparent soil moisture drought in European forest during heatwaves

LitMod2D_2.0: An improved integrated geophysical-petrological modeling tool for the physical interpretation of upper mantle anomalies

Multi-scale Variability of Meiyu and Its Prediction: A New Review

Earthquake cycles in fault-bend folds

Hunting the northern lights

Comparison of Data-driven Techniques to Reconstruct (1992-2002) and Predict (2017-2018) GRACE-like Gridded Total Water Storage Changes using Climate Inputs

Resilience of river deltas in the Anthropocene

Dust Devils on Titan

Submesoscale fronts in the Antarctic marginal ice zone and their response to wind forcing

Critical soil moisture derived from satellite observations over Europe

Association between Author Diversity and Acceptance Rates and Citations in Peer-reviewed Earth Science Manuscripts

Antarctic Topographic Realizations and Geostatistical Modeling Used to Map Subglacial Lakes

Laboratory study on fluid-induced fault slip behavior: The role of fluid pressurization rate

A large ensemble approach to quantifying internal model variability within the Weather Research & Forecasting (WRF) numerical model

Revisiting the Middle Eocene Climatic Optimum 'Carbon Cycle Conundrum' with new estimates of atmospheric pCO₂ from boron isotopes

Observed emergence of the climate change signal: from the familiar to the unknown

Perspectives on the future of Land Surface Models and the challenges of representing complex terrestrial systems

Sub-seasonal to seasonal prediction of weather to climate with application to tropical cyclones

Arctic snow depth and sea ice thickness from ICESat-2 and CryoSat-2 freeboards: A first examination

Composition, Stratigraphy, and Geological History of the Noachian Basement Surrounding the Isidis Impact Basin

Comparing the Properties of ICME-Induced Forbush decreases at Earth and Mars

Tectonic evolution of the Western High Atlas of Morocco: oblique convergence, reactivation and transpression

Global climate and human health effects of the gasoline and diesel vehicle fleets

Is there a Nascent Plate Boundary in the Northern Indian Ocean?

Particle ejection contributions to the rotational acceleration and orbit evolution of asteroid (101955) Bennu

A perspective on the future of transient storage modeling: let's stop chasing our tails

A polar surface eddy obscured by thermal stratification

Continuity of ice sheet mass loss in Greenland and Antarctica from the GRACE and GRACE Follow-On missions.

Toward the acoustic detection of two-phase flow patterns and Helmholtz resonators in englacial drainage systems

Emergent simplicity of continental evapotranspiration

The seasonality of submesoscale energy production, content, and cascade

The persistent ionospheric responses over Japan after the impact of the 2011 Tohoku earthquake

Comparative assessment of various machine learning-based bias correction methods for numerical weather prediction model forecasts of extreme air temperatures in urban areas

Understanding Arctic Ocean circulation: a review of ocean dynamics in a changing climate

Tectonics and Landscape of the Central African Plateau, and their implications for a propagating Southwestern Rift in Africa.

The impact of rain on ocean surface waves and currents

Controls on continental strain partitioning above an oblique subduction zone, Northern Andes

Seismic Event Coda-Correlation: Towards Global Coda-Correlation Tomography

The absence of an ocean and the fate of water all over the Martian history

Rosenbluth and Sagdeev in Trieste The Birth of Modern Space Plasma Physics

Doubling of U.S. Population Exposure to Climate Extremes by 2050

Grounding line retreat of Denman Glacier, East Antarctica, measured with COSMO-SkyMed radar interferometry data

Use of short range forecasts to evaluate fast-physics processes relevant for climate sensitivity

The Chemistry Mechanism in the Community Earth System Model version 2 (CESM2)

Scaling point-scale (pedo)transfer functions to seamless large-domain parameter estimates for high-resolution distributed hydrologic modeling: An example for the Rhine river

Magnetic reconnection inside a flux rope induced by Kelvin-Helmholtz vortices

The Space Environment of Io and Europa

On the changing role of the stratosphere on the tropospheric ozone budget: 1979-2010

Future changes of summer monsoon characteristics and evaporative demand over Asia in CMIP6 simulations

Permeability of three-dimensional numerically grown geomechanical discrete fracture networks with evolving geometry and mechanical apertures

Soil biogenic volatile organic compound flux in a mixed hardwood forest: Net uptake at warmer temperatures and the importance of mycorrhizal associations

Super-Earth internal structures and initial thermal states

Impact of cloud physics on the Greenland Ice Sheet near-surface climate: a study with the Community Atmosphere Model

New Observations of Large-Scale Waves Coupling with the Ionosphere Made by the GOLD Mission: Quasi-16-day Wave Signatures in the F-region OI 135.6 nm Nightglow During Sudden Stratospheric Warmings

Hybrid simulations of solar wind proton precipitation to the surface of Mercury

Do statistical models capture the dynamics of the magnetopause during sudden magnetospheric compressions?

A technical evaluation of lidar-based measurement of river water levels

Implementation of the CMIP6 forcing data in the IPSL-CM6A-LR model

ECOSTRESS: NASA's next generation mission to measure evapotranspiration from the International Space Station

Jupiter's X-ray Emission 2007 Part 2: Comparisons with UV and Radio Emissions and In-Situ Solar Wind Measurements

Jupiter's X-rays 2007 Part 1: Jupiter's X-ray Emission During Solar Minimum

Temporal and Spectral Studies by XMM-Newton of Jupiter's X-ray Auroras During a Compression Event

Insights from CMIP6 for Australia's future climate

The Transpolar Drift as a Source of Riverine and Shelf-Derived Trace Elements to the Central Arctic Ocean

Venusian Habitable Climate Scenarios: Modeling Venus through time and applications to slowly rotating Venus-Like Exoplanets

Uncertainties in Future U.S. Extreme Precipitation from Downscaled Climate Projections

Greenland Ice Sheet Contribution to 21st Century Sea Level Rise as Simulated by the Coupled CESM2.1-CISM2.1

Regional structural orientation of the Mt. Sharp group revealed by in-situ dip measurements and stratigraphic correlations on the Vera Rubin ridge

Hydrothermal chimney distribution on the Endeavour Segment, Juan de Fuca Ridge

Aram Dorsum: an extensive mid-Noachian age fluvial depositional system in Arabia Terra, Mars

Magnetic Field Measurements from Rome during the August-September 1859 Storms

Practical and theoretical benefits of an alternative to the Penman-Monteith evapotranspiration equation

Development of future heatwaves for different hazard thresholds

Lack of Change in the Projected Frequency and Persistence of Atmospheric Circulation Types Over Central Europe

Antarctic Sea Ice Area in CMIP6

Current models underestimate future irrigated areas

Exceptional 20th century ocean circulation in the Northeast Atlantic

Arctic Sea Ice in CMIP6

Ultramafic rock carbonation: Constraints from listvenite core BT1B, Oman Drilling Project

Twenty-first Century Drought Projections in the CMIP6 Forcing Scenarios

Superiority of Mega-ENSO index in the Seasonal Prediction of Tropical Cyclone Activity over the Western North Pacific

Fossil fuel combustion is driving indoor CO₂ toward levels harmful to human cognition

Crustal structure of Sri Lanka derived from joint inversion of surface wave dispersion and receiver functions using a Bayesian approach

Hydropower production benefits more from 1.5°C than 2°C climate scenario

Assessment of sea ice extent in CMIP6 with comparison to observations and CMIP5

Ice core record of persistent short-chain fluorinated alkyl acids: Evidence of the impact from global environmental regulations

Contextualizing marine heatwaves in the Southern California Bight under anthropogenic climate change

Challenges in applying machine learning models for hydrological inference: A case study for flooding events across Germany

Tropical cyclogenesis from self-aggregated convection in numerical simulations of rotating radiative-convective equilibrium

Soundscape of a narwhal summering ground in a glacier fjord (Inglefield Bredning, Greenland)

Meteorological Change and Impacts on Air Pollution -- Results from North China

Wide-angle seismic imaging of two modes of crustal accretion in mature Atlantic Ocean crust

An active plume eruption on Europa during Galileo flyby E26 as indicated by energetic proton depletions.

Major-element composition of sediments in terms of weathering and provenance: Implications for crustal recycling

Continuity of the mass loss of the World's Glaciers and Ice Caps from the GRACE and GRACE Follow-On missions.

Azimuthal Anisotropy of the Megaregolith at the Apollo 14 Landing Site

What are the key drivers controlling the quality of seasonal streamflow forecasts?

Surface depression and wetland water storage improves major river basin hydrologic predictions

A Machine-Learning-Based Global Atmospheric Forecast Model

Estimation of the Tangential Winds and Asymmetric Structures in Typhoon Inner Core Region Using Himawari-8

Impact of coronavirus outbreak on NO₂ pollution assessed using TROPOMI and OMI observations

Modeling the seasonality and controls of nitrous oxide emissions on the northwest European continental shelf

Contribution of wave setup to projected coastal sea level changes

Climate model projections of 21st century global warming constrained using the observed warming trend

MJO Propagation across the Maritime Continent: Are CMIP6 Models Better than CMIP5 Models?

Robust future changes in meteorological drought in CMIP6 projections despite uncertainty in precipitation

Confronting the challenge of modeling cloud and precipitation microphysics

Coupled Ocean-Atmosphere Modeling over the Maritime Continent: A Review

Lagged compound occurrence of droughts and pluvials globally over the past seven decades

Observations of electron precipitation during pulsating aurora and its chemical impact

The future of sediment transport and streamflow under a changing climate and the implications for long-term resilience of the San Francisco Bay-Delta

Impact of higher spatial atmospheric resolution on precipitation extremes over land in global climate models

Real-time flood forecasting based on a high-performance 2D hydrodynamic model and numerical weather predictions

The Response in Air Quality to the Reduction of Chinese Economic Activities during the COVID-19 Outbreak

Meteoroid Impacts as a Source of Bennu's Particle Ejection Events

Initial Observations by the Global-scale Observations of the Limb and Disk (GOLD) mission

CMIP6 Models Predict Significant 21st Century Decline of the Atlantic Meridional Overturning Circulation

Recent Decrease of Summer Sea Ice in the Weddell Sea, Antarctica

A long-lived sharp disruption on the lower clouds of Venus

Presentation and evaluation of the IPSL-CM6A-LR climate model

Chlorine Release from Common Chlorides by Martian Dust Activity

The observed seasonal cycle of submesoscale processes in the Antarctic marginal ice zone

External forcing explains recent decadal variability of the ocean carbon sink

Australian pyroCb smoke generates synoptic-scale stratospheric anticyclones

Quantifying the solar cycle modulation of extreme space weather

Low friction coefficient of phyllosilicate fault gouges and the effect of humidity: Insights from a new microphysical model

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