# Ethan Gutmann

List of Publications by Year
in descending order

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|---|---|---|---|
| 55<br>papers | 5,832<br>citations | 117625<br>34<br>h-index | 175258<br>52<br>g-index |
| 72<br>all docs | 72<br>docs citations | 72<br>times ranked | 6022<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Challenges and Capabilities in Estimating Snow Mass Intercepted in Conifer Canopies With Tree Sway Monitoring. Water Resources Research, 2022, 58, . | 4.2 | 6 |
| 2 | Hydroclimatic changes in Alaska portrayed by a high-resolution regional climate simulation. Climatic Change, 2021, 164, 1. | 3.6 | 2 |
| 3 | Snow Ensemble Uncertainty Project (SEUP): quantification of snow water equivalent uncertainty across North America via ensemble land surface modeling. Cryosphere, 2021, 15, 771-791. | 3.9 | 30 |
| 4 | A process-based evaluation of the Intermediate Complexity Atmospheric Research Model (ICAR) 1.0.1. Geoscientific Model Development, 2021, 14, 1657-1680. | 3.6 | 5 |
| 5 | Fortran Coarray Implementation of Semi-Lagrangian Convected Air Particles within an Atmospheric Model. ChemEngineering, 2021, 5, 21. | 2.4 | 0 |
| 6 | Snowfall and snowpack in the Western U.S. as captured by convection permitting climate simulations: current climate and pseudo global warming future climate. Climate Dynamics, 2021, 57, 2191-2215. | 3.8 | 27 |
| 7 | Snow interception modelling: Isolated observations have led to many land surface models lacking appropriate temperature sensitivities. Hydrological Processes, 2021, 35, e14274. | 2.6 | 15 |
| 8 | Snowpack dynamics in the Lebanese mountains from quasi-dynamically downscaled ERA5 reanalysis updated by assimilating remotely sensed fractional snow-covered area. Hydrology and Earth System Sciences, 2021, 25, 4455-4471. | 4.9 | 17 |
| 9 | Projected Climate Change Impacts on Hurricane Storm Surge Inundation in the Coastal United States. Frontiers in Built Environment, 2020, 6, . | 2.3 | 23 |
| 10 | Global Modeling of Precipitation Partitioning by Vegetation and Their Applications. , 2020, , 105-120. | | 11 |
| 11 | Snow depth mapping from stereo satellite imagery in mountainous terrain: evaluation using airborne laser-scanning data. Cryosphere, 2020, 14, 2925-2940. | 3.9 | 52 |
| 12 | Assessing the added value of the Intermediate Complexity Atmospheric Research (ICAR) model for precipitation in complex topography. Hydrology and Earth System Sciences, 2019, 23, 2715-2734. | 4.9 | 8 |
| 13 | ESD Reviews: Model dependence in multi-model climate ensembles: weighting, sub-selection and out-of-sample testing. Earth System Dynamics, 2019, 10, 91-105. | 7.1 | 92 |
| 14 | Our Skill in Modeling Mountain Rain and Snow is Bypassing the Skill of Our Observational Networks. Bulletin of the American Meteorological Society, 2019, 100, 2473-2490. | 3.3 | 145 |
| 15 | Changes in Hurricanes from a 13-Yr Convection-Permitting Pseudoâ€“Global Warming Simulation. Journal of Climate, 2018, 31, 3643-3657. | 3.2 | 120 |
| 16 | Meteorological Applications Benefiting from an Improved Understanding of Atmospheric Exchange Processes over Mountains. Atmosphere, 2018, 9, 371. | 2.3 | 27 |
| 17 | DOs and DON'Ts for using climate change information for water resource planning and management: guidelines for study design. Climate Services, 2018, 12, 1-13. | 2.5 | 21 |
| 18 | Robustness of hydroclimate metrics for climate change impact research. Wiley Interdisciplinary Reviews: Water, 2018, 5, e1288. | 6.5 | 21 |

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|---|---|---|---|
| 19 | Observed compression of in situ tree stems during freezing. Agricultural and Forest Meteorology, 2017, 243, 19-24. | 4.8 | 8 |
| 20 | Continental-scale convection-permitting modeling of the current and future climate of North America. Climate Dynamics, 2017, 49, 71-95. | 3.8 | 362 |
| 21 | Towards seamless largeâ€domain parameter estimation for hydrologic models. Water Resources Research, 2017, 53, 8020-8040. | 4.2 | 108 |
| 22 | Climate change impacts on flood risk and asset damages within mapped 100-year floodplains of the contiguous United States. Natural Hazards and Earth System Sciences, 2017, 17, 2199-2211. | 3.6 | 53 |
| 23 | Performance portability of an intermediate-complexity atmospheric research model in coarray Fortran. , 2017, , . | | 1 |
| 24 | How do hydrologic modeling decisions affect the portrayal of climate change impacts?. Hydrological Processes, 2016, 30, 1071-1095. | 2.6 | 52 |
| 25 | Characterizing Uncertainty of the Hydrologic Impacts of Climate Change. Current Climate Change Reports, 2016, 2, 55-64. | 8.6 | 159 |
| 26 | Effects of different regional climate model resolution and forcing scales on projected hydrologic changes. Journal of Hydrology, 2016, 541, 1003-1019. | 5.4 | 31 |
| 27 | Riparian zones attenuate nitrogen loss following bark beetleâ€induced lodgepole pine mortality. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 933-948. | 3.0 | 9 |
| 28 | Modeling Rainfall Interception Loss for an Epiphyte-Laden Quercus virginiana Forest Using Reformulated Static- and Variable-Storage Gash Analytical Models. Journal of Hydrometeorology, 2016, 17, 1985-1997. | 1.9 | 10 |
| 29 | The Intermediate Complexity Atmospheric Research Model (ICAR). Journal of Hydrometeorology, 2016, 17, 957-973. | 1.9 | 46 |
| 30 | Implications of the Methodological Choices for Hydrologic Portrayals of Climate Change over the Contiguous United States: Statistically Downscaled Forcing Data and Hydrologic Models. Journal of Hydrometeorology, 2016, 17, 73-98. | 1.9 | 59 |
| 31 | Recent tree dieâ€off has little effect on streamflow in contrast to expected increases from historical studies. Water Resources Research, 2015, 51, 9775-9789. | 4.2 | 97 |
| 32 | A unified approach for processâ€based hydrologic modeling: 2. Model implementation and case studies. Water Resources Research, 2015, 51, 2515-2542. | 4.2 | 173 |
| 33 | Effects of Hydrologic Model Choice and Calibration on the Portrayal of Climate Change Impacts. Journal of Hydrometeorology, 2015, 16, 762-780. | 1.9 | 84 |
| 34 | High-Elevation Precipitation Patterns: Using Snow Measurements to Assess Daily Gridded Datasets across the Sierra Nevada, California*. Journal of Hydrometeorology, 2015, 16, 1773-1792. | 1.9 | 83 |
| 35 | A unified approach for processâ€based hydrologic modeling: 1. Modeling concept. Water Resources Research, 2015, 51, 2498-2514. | 4.2 | 354 |
| 36 | Gridded Ensemble Precipitation and Temperature Estimates for the Contiguous United States. Journal of Hydrometeorology, 2015, 16, 2481-2500. | 1.9 | 124 |

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|---|---|---|---|
| 37 | Climate Change Impacts on the Water Balance of the Colorado Headwaters: High-Resolution Regional Climate Model Simulations. Journal of Hydrometeorology, 2014, 15, 1091-1116. | 1.9 | 166 |
| 38 | Multiscale observations of snow accumulation and peak snowpack following widespread, insectâ€induced lodgepole pine mortality. Ecohydrology, 2014, 7, 150-162. | 2.4 | 88 |
| 39 | An intercomparison of statistical downscaling methods used for water resource assessments in the <scp>U</scp>nited <scp>S</scp>tates. Water Resources Research, 2014, 50, 7167-7186. | 4.2 | 168 |
| 40 | A Comparison of Statistical and Dynamical Downscaling of Winter Precipitation over Complex Terrain. Journal of Climate, 2012, 25, 262-281. | 3.2 | 181 |
| 41 | How Well Are We Measuring Snow: The NOAA/FAA/NCAR Winter Precipitation Test Bed. Bulletin of the American Meteorological Society, 2012, 93, 811-829. | 3.3 | 538 |
| 42 | Cascading impacts of bark beetleâ€caused tree mortality on coupled biogeophysical and biogeochemical processes. Frontiers in Ecology and the Environment, 2012, 10, 416-424. | 4.0 | 215 |
| 43 | Snow measurement by GPS interferometric reflectometry: an evaluation at Niwot Ridge, Colorado. Hydrological Processes, 2012, 26, 2951-2961. | 2.6 | 79 |
| 44 | High-Resolution Coupled Climate Runoff Simulations of Seasonal Snowfall over Colorado: A Process Study of Current and Warmer Climate. Journal of Climate, 2011, 24, 3015-3048. | 3.2 | 400 |
| 45 | A Physical Model for GPS Multipath Caused by Land Reflections: Toward Bare Soil Moisture Retrievals. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 100-110. | 4.9 | 160 |
| 46 | GPS Multipath and Its Relation to Near-Surface Soil Moisture Content. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 91-99. | 4.9 | 220 |
| 47 | A method for the determination of the hydraulic properties of soil from MODIS surface temperature for use in landâ€surface models. Water Resources Research, 2010, 46, . | 4.2 | 37 |
| 48 | Simulation of seasonal snowfall over Colorado. Atmospheric Research, 2010, 97, 462-477. | 4.1 | 144 |
| 49 | Can we measure snow depth with GPS receivers?. Geophysical Research Letters, 2009, 36, . | 4.0 | 277 |
| 50 | Using GPS multipath to measure soil moisture fluctuations: initial results. GPS Solutions, 2008, 12, 173-177. | 4.3 | 213 |
| 51 | Use of GPS receivers as a soil moisture network for water cycle studies. Geophysical Research Letters, 2008, 35, . | 4.0 | 316 |
| 52 | A comparison of land surface model soil hydraulic properties estimated by inverse modeling and pedotransfer functions. Water Resources Research, 2007, 43, . | 4.2 | 69 |
| 53 | Amountâ€weighted annual isotopic (Î´<sup>18</sup>O) values are affected by the seasonality of precipitation: A sensitivity study. Geophysical Research Letters, 2007, 34, . | 4.0 | 55 |
| 54 | The effect of soil hydraulic properties vs. soil texture in land surface models. Geophysical Research Letters, 2005, 32, . | 4.0 | 35 |

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|---|---|---|---|
| 55 | Diagenetic origin for quartz-pebble conglomerates. Geology, 2002, 30, 323. | 4.4 | 17 |