# Ryo Mizuta

List of Publications by Year
in descending order



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|---|---|---|---|
| 57 papers | 5,780 citations | 147801 31 h-index | 168389 53 g-index |
| 58 all docs | 58 docs citations | 58 times ranked | 5285 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A New Global Climate Model of the Meteorological Research Institute: MRI-CGCM3 â€"Model Description and Basic Performanceâ€". Journal of the Meteorological Society of Japan, 2012, 90A, 23-64. | 1.8 | 649 |
| 2 | High Resolution Model Intercomparison Project (HighResMIPÂv1.0) for CMIP6. Geoscientific Model Development, 2016, 9, 4185-4208. | 3.6 | 643 |
| 3 | Tropical Cyclone Climatology in a Global-Warming Climate as Simulated in a 20 km-Mesh Global Atmospheric Model: Frequency and Wind Intensity Analyses. Journal of the Meteorological Society of Japan, 2006, 84, 259-276. | 1.8 | 492 |
| 4 | The Meteorological Research Institute Earth System Model Version 2.0, MRI-ESM2.0: Description and Basic Evaluation of the Physical Component. Journal of the Meteorological Society of Japan, 2019, 97, 931-965. | 1.8 | 434 |
| 5 | Climate Simulations Using MRI-AGCM3.2 with 20-km Grid. Journal of the Meteorological Society of Japan, 2012, 90A, 233-258. | 1.8 | 413 |
| 6 | Future Changes in Tropical Cyclone Activity Projected by the New High-Resolution MRI-AGCM. Journal of Climate, 2012, 25, 3237-3260. | 3.2 | 342 |
| 7 | Over 5,000 Years of Ensemble Future Climate Simulations by 60-km Global and 20-km Regional Atmospheric Models. Bulletin of the American Meteorological Society, 2017, 98, 1383-1398. | 3.3 | 324 |
| 8 | 20-km-Mesh Global Climate Simulations Using JMA-GSM Model<br>—Mean Climate States—. Journal of the Meteorological Society of Japan, 2006, 84, 165-185. | 1.8 | 218 |
| 9 | Future changes in tropical cyclone activity projected by multi-physics and multi-SST ensemble experiments using the 60-km-mesh MRI-AGCM. Climate Dynamics, 2012, 39, 2569-2584. | 3.8 | 174 |
| 10 | The predictability of the extratropical stratosphere on monthly timeâ€scales and its impact on the skill of tropospheric forecasts. Quarterly Journal of the Royal Meteorological Society, 2015, 141, 987-1003. | 2.7 | 162 |
| 11 | Future Changes in Tropical Cyclone Activity in Highâ€Resolution Largeâ€Ensemble Simulations. Geophysical Research Letters, 2017, 44, 9910-9917. | 4.0 | 159 |
| 12 | Classification of CMIP5 Future Climate Responses by the Tropical Sea Surface Temperature Changes. Scientific Online Letters on the Atmosphere, 2014, 10, 167-171. | 1.4 | 147 |
| 13 | Change of Baiu Rain Band in Global Warming Projection by an Atmospheric General Circulation Model with a 20-km Grid Size. Journal of the Meteorological Society of Japan, 2006, 84, 581-611. | 1.8 | 133 |
| 14 | Projected Future Changes in Tropical Cyclones Using the CMIP6 HighResMIP Multimodel Ensemble. Geophysical Research Letters, 2020, 47, e2020GL088662. | 4.0 | 119 |
| 15 | Global warming changes tropical cyclone translation speed. Nature Communications, 2020, 11, 47. | 12.8 | 104 |
| 16 | Future change in wintertime atmospheric blocking simulated using a 20â€kmâ€mesh atmospheric global circulation model. Journal of Geophysical Research, 2009, 114, . | 3.3 | 97 |
| 17 | Monsoon circulation interaction with Western Ghats orography under changing climate. Theoretical and Applied Climatology, 2012, 110, 555-571. | 2.8 | 88 |
| 18 | Future changes and uncertainties in Asian precipitation simulated by multiphysics and multiâ€"sea surface temperature ensemble experiments with highâ€resolution Meteorological Research Institute atmospheric general circulation models (MRIâ€AGCMs). Journal of Geophysical Research, 2012, 117, . | 3.3 | 86 |

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|---|---|---|---|
| 19 | A Spectral Cumulus Parameterization Scheme Interpolating between Two Convective Updrafts with Semi-Lagrangian Calculation of Transport by Compensatory Subsidence. Monthly Weather Review, 2015, 143, 597-621. | 1.4 | 82 |
| 20 | Tropical cyclone motion in a changing climate. Science Advances, 2020, 6, eaaz7610. | 10.3 | 68 |
| 21 | Basic performance of a new earth system model of the Meteorological Research Institute (MRI-ESM1). Papers in Meteorology and Geophysics, 2013, 64, 1-19. | 0.9 | 66 |
| 22 | Precipitation Changes in a Climate With 2â€K Surface Warming From Large Ensemble Simulations Using 60â€km Global and 20â€km Regional Atmospheric Models. Geophysical Research Letters, 2019, 46, 435-442. | 4.0 | 65 |
| 23 | Enhancement of heavy daily snowfall in central Japan due to global warming as projected by large ensemble of regional climate simulations. Climatic Change, 2016, 139, 265-278. | 3.6 | 63 |
| 24 | Examining the Predictability of the Stratospheric Sudden Warming of January 2013 Using Multiple NWP Systems. Monthly Weather Review, 2016, 144, 1935-1960. | 1.4 | 62 |
| 25 | Future changes in extreme storm surges based on mega-ensemble projection using 60-km resolution atmospheric global circulation model. Coastal Engineering Journal, 2019, 61, 295-307. | 1.9 | 59 |
| 26 | Uncertainty in the Response of Sudden Stratospheric Warmings and Stratosphereâ€Troposphere Coupling to Quadrupled CO<sub>2</sub> Concentrations in CMIP6 Models. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD032345. | 3.3 | 50 |
| 27 | Future Changes in Precipitation Extremes in East Asia and Their Uncertainty Based on Large Ensemble Simulations with a High-Resolution AGCM. Scientific Online Letters on the Atmosphere, 2017, 13, 7-12. | 1.4 | 47 |
| 28 | Changes in Precipitation-based Extremes Indices Due to Global Warming Projected by a Global 20-km-mesh Atmospheric Model. Scientific Online Letters on the Atmosphere, 2006, 2, 64-67. | 1.4 | 39 |
| 29 | Chaotic Mixing and Transport Barriers in an Idealized Stratospheric Polar Vortex. Journals of the Atmospheric Sciences, 2001, 58, 2616-2629. | 1.7 | 35 |
| 30 | Changes in precipitation intensity over East Asia during the 20th and 21st centuries simulated by a global atmospheric model with a 60â€‰km grid size. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,007. | 3.3 | 34 |
| 31 | Future Changes in the Global Frequency of Tropical Cyclone Seeds. Scientific Online Letters on the Atmosphere, 2020, 16, 70-74. | 1.4 | 33 |
| 32 | Effect of airâ€sea coupling on the frequency distribution of intense tropical cyclones over the northwestern Pacific. Geophysical Research Letters, 2015, 42, 10,415. | 4.0 | 31 |
| 33 | Evaluation of the contribution of tropical cyclone seeds to changes in tropical cyclone frequency due to global warming in high-resolution multi-model ensemble simulations. Progress in Earth and Planetary Science, 2021, 8, . | 3.0 | 30 |
| 34 | Predictability of the stratospheric polar vortex breakdown: An ensemble reforecast experiment for the splitting event in January 2009. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3388-3404. | 3.3 | 26 |
| 35 | Atmosphere-Ocean Coupling Effect on Intense Tropical Cyclone Distribution and its Future Change with 60â€‰km-AOGCM. Scientific Reports, 2016, 6, 29800. | 3.3 | 25 |
| 36 | High-Resolution Simulation of Mean Convection and Its Intraseasonal Variability over the Tropics in the MRI/JMA 20-km Mesh AGCM. Journal of Climate, 2008, 21, 3722-3739. | 3.2 | 24 |

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|---|---|---|---|
| 37 | The Sensitivity of Euroâ€Atlantic Regimes to Model Horizontal Resolution. Geophysical Research Letters, 2019, 46, 7810-7818. | 4.0 | 20 |
| 38 | Forced response and internal variability of summer climate over western North America. Climate Dynamics, 2017, 49, 403-417. | 3.8 | 19 |
| 39 | Longâ€term impacts of ocean waveâ€dependent roughness on global climate systems. Journal of Geophysical Research: Oceans, 2017, 122, 1995-2011. | 2.6 | 19 |
| 40 | Scalability of future climate changes across Japan examined with large-ensemble simulations at + 1.5â€‰K, +2â€‰K, and + 4â€‰K global warming levels. Progress in Earth and Planetary Science, 2020, 7, . | 3.0 | 15 |
| 41 | Regional Projection of Tropical-Cyclone-Induced Extreme Precipitation around Japan Based on Large Ensemble Simulations. Scientific Online Letters on the Atmosphere, 2020, 16, 23-29. | 1.4 | 12 |
| 42 | Impact of interactive chemistry of stratospheric ozone on Southern Hemisphere paleoclimate simulation. Journal of Geophysical Research D: Atmospheres, 2017, 122, 878-895. | 3.3 | 10 |
| 43 | Dynamics and Predictability of Downward-Propagating Stratospheric Planetary Waves Observed in March 2007. Journals of the Atmospheric Sciences, 2017, 74, 3533-3550. | 1.7 | 10 |
| 44 | Mitigation of Global Cooling by Stratospheric Chemistry Feedbacks in a Simulation of the Last Glacial Maximum. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9378-9390. | 3.3 | 10 |
| 45 | Projected Changes in Extreme Precipitation in a 60â€km AGCM Large Ensemble and Their Dependence on Return Periods. Geophysical Research Letters, 2020, 47, e2019GL086855. | 4.0 | 10 |
| 46 | Seasonal characteristics of future climate change over Japan and the associated atmospheric circulation anomalies in global model experiments. Hydrological Research Letters, 2020, 14, 130-135. | 0.5 | 10 |
| 47 | Intermodel Differences in Upwelling in the Tropical Tropopause Layer Among CMIP5 Models. Journal of Geophysical Research D: Atmospheres, 2018, 123, 13,658. | 3.3 | 5 |
| 48 | Impact of Satellite Observations on Forecasting Sudden Stratospheric Warmings. Geophysical Research Letters, 2020, 47, e2019GL086233. | 4.0 | 4 |
| 49 | Do Sudden Stratospheric Warmings Boost Convective Activity in the Tropics?. Geophysical Research Letters, 2021, 48, e2021GL093688. | 4.0 | 3 |
| 50 | Development of a system for efficient content-based retrieval to analyze large volumes of climate data. Progress in Earth and Planetary Science, 2020, 7, . | 3.0 | 3 |
| 51 | Tropical Cyclone Characteristics Represented by the Ocean Wave Coupled Atmospheric Global Climate Model Incorporating Wave-Dependent Momentum Flux. Journal of Climate, 2021, , 1-46. | 3.2 | 3 |
| 52 | Extratropical stratosphereâ€troposphere exchange in an AGCM with the horizontal grid size of 20 km. Journal of Geophysical Research, 2009, 114, . | 3.3 | 2 |
| 53 | Future Changes in Extreme Precipitation and Their Association with Tropical Cyclone Activity over the Western North Pacific and East Asia in 20 km AGCM Simulations. Scientific Online Letters on the Atmosphere, 2022, 18, 58-64. | 1.4 | 1 |
| 54 | OCEAN WAVE-DEPENDENT ROUGHNESS IMPACTS ON CLIMATE SYSTEM BY COUPLED ATMOSPHERIC GLOBAL CLIMATE-WAVE MODEL. Journal of Japan Society of Civil Engineers Ser B2 (Coastal Engineering), 2016, 72, I_1507-I_1512. | 0.4 | 0 |

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|---|---|---|---|
| 55 | Effect of high-resolution SST on East Asian summer monsoon and tropical cyclone activity in a 60-km AGCM. Hydrological Research Letters, 2016, 10, 95-100. | 0.5 | 0 |
| 56 | THE IMPACT OF SST COOLING ON TROPICAL CYCLONE BY COUPLED ATMOSPHERIC GLOBAL CLIMATE-SLAB OCEAN-WAVE MODEL. Journal of Japan Society of Civil Engineers Ser B2 (Coastal Engineering), 2018, 74, I_1375-I_1380. | 0.4 | 0 |
| 57 | SYSTEMATIC IMPACTS OF SURFACE DRAG CONSIDERING MISALIGNMENT OF WAVE-WIND DIRECTION ON TYPHOON CHARACTERISTICS. Journal of Japan Society of Civil Engineers Ser B2 (Coastal Engineering), 2020, 76, I_151-I_156. | 0.4 | 0 |