Eli J Mlawer

List of Publications by Year
in descending order

38 papers	11,480 citations	279701 23 h-index	330025 37 g-index
44 all docs	44 docs citations	44 times ranked	9352 citing authors

#	Article	IF	Citations
1	Radiative transfer for inhomogeneous atmospheres: RRTM, a validated correlated-k model for the longwave. Journal of Geophysical Research, 1997, 102, 16663-16682.	3.3	6,209
2	Radiative forcing by longâ€lived greenhouse gases: Calculations with the AER radiative transfer models. Journal of Geophysical Research, 2008, 113, .	3.3	3,199
3	Impact of an improved longwave radiation model, RRTM, on the energy budget and thermodynamic properties of the NCAR community climate model, CCM3. Journal of Geophysical Research, 2000, 105, 14873-14890.	3.3	352
4	Development and recent evaluation of the MT_CKD model of continuum absorption. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 2520-2556.	1.6	333
5	Downwelling spectral radiance observations at the SHEBA ice station: Water vapor continuum measurements from 17 to 26Î¼m. Journal of Geophysical Research, 1999, 104, 2081-2092.	3.3	114
6	The Continual Intercomparison of Radiation Codes: Results from Phase I. Journal of Geophysical Research, 2012, 117, .	3.3	112
7	The QME AERI LBLRTM: A Closure Experiment for Downwelling High Spectral Resolution Infrared Radiance. Journals of the Atmospheric Sciences, 2004, 61, 2657-2675.	0.6	107
8	Performance of the Line-By-Line Radiative Transfer Model (LBLRTM) for temperature, water vapor, and trace gas retrievals: recent updates evaluated with IASI case studies. Atmospheric Chemistry and Physics, 2013, 13, 6687-6711.	1.9	107
9	Improved Daytime Column-Integrated Precipitable Water Vapor from Vaisala Radiosonde Humidity Sensors. Journal of Atmospheric and Oceanic Technology, 2008, 25, 873-883.	0.5	86
10	Influence of Ice Particle Surface Roughening on the Global Cloud Radiative Effect. Journals of the Atmospheric Sciences, 2013, 70, 2794-2807.	0.6	72
11	Air-Broadened Half-Widths of the 22- and 183-GHz Water-Vapor Lines. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 3601-3617.	2.7	71
12	A farâ€infrared radiative closure study in the Arctic: Application to water vapor. Journal of Geophysical Research, 2010, 115, .	3.3	62
13	Water Vapor Continuum Absorption in the Microwave. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2194-2208.	2.7	62
14	The Radiative Heating in Underexplored Bands Campaigns. Bulletin of the American Meteorological Society, 2010, 91, 911-924.	1.7	61
15	Radiative flux and forcing parameterization error in aerosolâ€free clear skies. Geophysical Research Letters, 2015, 42, 5485-5492.	1.5	57
16	Comparison of spectral direct and diffuse solar irradiance measurements and calculations for cloud-free conditions. Geophysical Research Letters, 2000, 27, 2653-2656.	1.5	55
17	Balancing Accuracy, Efficiency, and Flexibility in Radiation Calculations for Dynamical Models. Journal of Advances in Modeling Earth Systems, 2019, 11, 3074-3089.	1.3	49
18	Observationally derived rise in methane surface forcing mediated by water vapour trends. Nature Geoscience, 2018, 11, 238-243.	5.4	37

#	Article	IF	Citations
19	Comparison of Ground-Based Millimeter-Wave Observations and Simulations in the Arctic Winter. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 3098-3106.	2.7	31
20	Analysis of Water Vapor Absorption in the Farâ€Infrared and Submillimeter Regions Using Surface Radiometric Measurements From Extremely Dry Locations. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8134-8160.	1.2	26
21	Water Vapor Observations in the ARM Program. Meteorological Monographs, 2016, 57, 13.1-13.18.	5.0	25
22	Groundâ€based high spectral resolution observations of the entire terrestrial spectrum under extremely dry conditions. Geophysical Research Letters, 2012, 39, .	1.5	24
23	Impact of Multiple Scattering on Longwave Radiative Transfer Involving Clouds. Journal of Advances in Modeling Earth Systems, 2017, 9, 3082-3098.	1.3	24
24	Absorption coefficient (ABSCO) tables for the Orbiting Carbon Observatories: Version 5.1. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 255, 107217.	1.1	24
25	Spectral Radiation Measurements and Analysis in the ARM Program. Meteorological Monographs, 2016, 57, 14.1-14.17.	5.0	23
26	Benchmark Calculations of Radiative Forcing by Greenhouse Gases. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033483.	1.2	21
27	Contributions of the ARM Program to Radiative Transfer Modeling for Climate and Weather Applications. Meteorological Monographs, 2016, 57, 15.1-15.19.	5.0	20
28	The spectroscopic foundation of radiative forcing of climate by carbon dioxide. Geophysical Research Letters, 2016, 43, 5318-5325.	1.5	20
29	How Does a Pinatuboâ€Size Volcanic Cloud Reach the Middle Stratosphere?. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033829.	1.2	18
30	Impact of modifying the longwave water vapor continuum absorption model on community Earth system model simulations. Journal of Geophysical Research, 2012, 117, .	3.3	17
31	Improvement of the Simulation of Cloud Longwave Scattering in Broadband Radiative Transfer Models. Journals of the Atmospheric Sciences, 2018, 75, 2217-2233.	0.6	16
32	Dynamics of Local Circulations in Mountainous Terrain during the RHUBC-II Project. Monthly Weather Review, 2013, 141, 3641-3656.	0.5	12
33	Evaluation of two Vaisala RS92 radiosonde solar radiative dry bias correction algorithms. Atmospheric Measurement Techniques, 2016, 9, 1613-1626.	1.2	10
34	Spectroscopic uncertainty impacts on OCO-2/3 retrievals of XCO2. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 257, 107360.	1.1	9
35	Measurements of downwelling far-infrared radiance during the RHUBC-II campaign at Cerro Toco, Chile and comparisons with line-by-line radiative transfer calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 198, 25-39.	1.1	6
36	Improved Î´-Eddington approximation for optically thin clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 240, 106694.	1.1	4

#	Article	IF	Citations
37	An Improved Ocean Surface Albedo Computational Scheme: Structure and Performance. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016958.	1.0	3
38	Far-Infrared Spectroscopy of Water Vapor: Results from Deployment of FIRST to Cerro Toco and Requirements for Future Experiments in Extremely Dry Environments. , 2016, , .		0