Eli J Mlawer

List of Publications by Citations

38 papers	8,926 citations	21 h-index	44 g-index
44 ext. papers	10,142 ext. citations	4.8 avg, IF	5.53 L-index

#	Paper	IF	Citations
38	Radiative transfer for inhomogeneous atmospheres: RRTM, a validated correlated-k model for the longwave. *Journal of Geophysical Research*, **1997**, 102, 16663-16682		5046
37	Radiative forcing by long-lived greenhouse gases: Calculations with the AER radiative transfer models. *Journal of Geophysical Research*, **2008**, 113,		2260
36	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		291
35	Development and recent evaluation of the MT_CKD model of continuum absorption. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2012**, 370, 2520-56	3	254
34	Downwelling spectral radiance observations at the SHEBA ice station: Water vapor continuum measurements from 17 to 26 μm. *Journal of Geophysical Research*, **1999**, 104, 2081-2092		97
33	The Continual Intercomparison of Radiation Codes: Results from Phase I. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		96
32	The QME AERI LBLRTM: A Closure Experiment for Downwelling High Spectral Resolution Infrared Radiance. *Journals of the Atmospheric Sciences*, **2004**, 61, 2657-2675	2.1	88
31	Improved Daytime Column-Integrated Precipitable Water Vapor from Vaisala Radiosonde Humidity Sensors. *Journal of Atmospheric and Oceanic Technology*, **2008**, 25, 873-883	2	77
30	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	6.8	72
29	Air-Broadened Half-Widths of the 22- and 183-GHz Water-Vapor Lines. *IEEE Transactions on Geoscience and Remote Sensing*, **2008**, 46, 3601-3617	8.1	60
28	Influence of Ice Particle Surface Roughening on the Global Cloud Radiative Effect. *Journals of the Atmospheric Sciences*, **2013**, 70, 2794-2807	2.1	56
27	The Radiative Heating in Underexplored Bands Campaigns. *Bulletin of the American Meteorological Society*, **2010**, 91, 911-924	6.1	53
26	Water Vapor Continuum Absorption in the Microwave. *IEEE Transactions on Geoscience and Remote Sensing*, **2011**, 49, 2194-2208	8.1	53
25	A far-infrared radiative closure study in the Arctic: Application to water vapor. *Journal of Geophysical Research*, **2010**, 115,		49
24	Comparison of spectral direct and diffuse solar irradiance measurements and calculations for cloud-free conditions. *Geophysical Research Letters*, **2000**, 27, 2653-2656	4.9	48
23	Radiative flux and forcing parameterization error in aerosol-free clear skies. *Geophysical Research Letters*, **2015**, 42, 5485-5492	4.9	46
22	Comparison of Ground-Based Millimeter-Wave Observations and Simulations in the Arctic Winter. *IEEE Transactions on Geoscience and Remote Sensing*, **2009**, 47, 3098-3106	8.1	26

21	Observationally derived rise in methane surface forcing mediated by water vapour trends. *Nature Geoscience*, **2018**, 11, 238-243	18.3	24
20	Water Vapor Observations in the ARM Program. *Meteorological Monographs*, **2016**, 57, 13.1-13.18	5.7	24
19	Ground-based high spectral resolution observations of the entire terrestrial spectrum under extremely dry conditions. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	22
18	Balancing Accuracy, Efficiency, and Flexibility in Radiation Calculations for Dynamical Models. *Journal of Advances in Modeling Earth Systems*, **2019**, 11, 3074-3089	7.1	21
17	Spectral Radiation Measurements and Analysis in the ARM Program. *Meteorological Monographs*, **2016**, 57, 14.1-14.17	5.7	20
16	Analysis of Water Vapor Absorption in the Far-Infrared and Submillimeter Regions Using Surface Radiometric Measurements From Extremely Dry Locations. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 8134-8160	4.4	18
15	Contributions of the ARM Program to Radiative Transfer Modeling for Climate and Weather Applications. *Meteorological Monographs*, **2016**, 57, 15.1-15.19	5.7	18
14	Impact of Multiple Scattering on Longwave Radiative Transfer Involving Clouds. *Journal of Advances in Modeling Earth Systems*, **2017**, 9, 3082-3098	7.1	16
13	Impact of modifying the longwave water vapor continuum absorption model on community Earth system model simulations. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		15
12	The spectroscopic foundation of radiative forcing of climate by carbon dioxide. *Geophysical Research Letters*, **2016**, 43, 5318-5325	4.9	14
11	Dynamics of Local Circulations in Mountainous Terrain during the RHUBC-II Project. *Monthly Weather Review*, **2013**, 141, 3641-3656	2.4	11
10	Improvement of the Simulation of Cloud Longwave Scattering in Broadband Radiative Transfer Models. *Journals of the Atmospheric Sciences*, **2018**, 75, 2217-2233	2.1	10
9	Evaluation of two Vaisala RS92 radiosonde solar radiative dry bias correction algorithms. *Atmospheric Measurement Techniques*, **2016**, 9, 1613-1626	4	9
8	Absorption coefficient (ABSCO) tables for the Orbiting Carbon Observatories: Version 5.1. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2020**, 255, 107217	2.1	9
7	Benchmark Calculations of Radiative Forcing by Greenhouse Gases. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2020JD033483	4.4	6
6	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	2.1	5
5	How Does a Pinatubo-Size Volcanic Cloud Reach the Middle Stratosphere?. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033829	4.4	5
4	Spectroscopic uncertainty impacts on OCO-2/3 retrievals of XCO2. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2020**, 257, 107360	2.1	4

3	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		1
2	Improved Eddington approximation for optically thin clouds. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2020**, 240, 106694	2.1	1
1	An Improved Ocean Surface Albedo Computational Scheme: Structure and Performance. *Journal of Geophysical Research: Oceans*, **2021**, 126, e2020JC016958	3.3	0