Publications

Book: Topics in Mathematical Modeling

- K.F. Li and K. K. Tung (2023): Solar cycle as a distinct line of evidence constraining Earth's transient climate response. Nature Communications https://doi.org/10.1038/s41467-023-43583-7

- X. Chen and K.K. Tung (2023): Evidence lacking for a pending collapse of Atlantic Meridional Overturning Circulation, Nature Climate Change. https://rdcu.be/dsryy

- Yi, L., Li, K.-F., Chen, X., & Tung, K.-K. (2023): Summer marine fog distribution in the Chukchi–Beaufort Seas. Earth and Space Science, 10, e2021EA002049. https://doi.org/10.1029/2021EA002049

- Song, S., Chen, Y., Chen, X., Chen, C., Li, K.-F., Tung, K.-K., et al. (2023): Adapting to a foggy future along trans-Arctic shipping routes. Geophysical Research Letters, 50, e2022GL102395. https://doi.org/10.1029/2022GL102395

- Huang, N. E., F. Qiao, W. Qian, H. Qian, and K. K. Tung (2021): A model for the spread of infectious diseases compatible with case data. Proc. Roy, Soc., A 477: 2021551. https://doi.org/10.1098/rspa.2021.0551

- Chen, X. and K. K. Tung (2021): Comment on 'On the relationship between Atlantic meridional overturning circulation slowdown and global surface warming' Environ. Research. Letts. 16. 038001. https://doi.org/10.1088/1748-9326/abc775

- Feng Y., X. Chen, K.K. Tung (2020): ENSO diversity and the recent appearance of Central Pacific ENSO, Climate Dynamics. 54, 413-433. https://www.dropbox.com/scl/fi/4q0nz8k71ey8r6huyohb7/Feng2020_Article_ENSODiversityAndTheRecentAppea.pdf?rlkey=ukcs47iklbrkly83ihqtjaynx&dl=0

- Feng, Y. and K. K. Tung (2020): ENSO modulation: real and apparent, implications for decadal prediction. 54, 615-629. https://www.dropbox.com/scl/fi/mw48rzalgtgewal3o33v0/Feng-Tung2020_Article_ENSOModulationRealAndApparentI.pdf?rlkey=alwccge1yrqknbgk1fnj71zv2&dl=0

- Yi, L., Li, K.-F., Chen, X., & Tung, K.-K. (2019): Arctic Fog Detection Using Infrared Spectral Measurements, J. Atmos. & Ocean Tech., 36, 1643-1656. https://doi.org/10.1175/JTECH-D-18-0100.1

- X. Chen and K. K. Tung (2018): "Global surface warming enhanced by weak Atlantic overturning circulation," Nature, 559, 387-391. https://www.dropbox.com/scl/fi/7ggtiufksfrj3uirrrmgc/Chen-and-Tung-2018-Nature.pdf?rlkey=j0cf8k1y4v7k4hc6zhrwk0pju&dl=0

- K. K. Tung and X. Chen (2018): "Understanding the recent global surface warming slowdown: a review," Climate, 6, 82-100. https://www.proquest.com/docview/2582795547

- Tung, K. K., X. Chen, K.F. Li, J. Zhou (2018): Interdecadal variability in pan-Pacific and global SST, revisited. Climate Dynamics. https://www.dropbox.com/scl/fi/wlahpszite2jnfwjbocxw/Tung2018_Article_InterdecadalVariabilityInPan-P.pdf?rlkey=gy3xds1ggq4fao3uricq5ty41&dl=0

- Chen, X. and K. K. Tung (2017): Global-mean surface temperature variability: Space-time perspective from rotated EOF. Climate Dynamics. https://www.dropbox.com/scl/fi/83akqbudcawxqfazrji0i/Chen-Tung2018_Article_Global-meanSurfaceTemperatureV.pdf?rlkey=xp53rilv39zg8v8yuoyaly8h0&dl=0

- Chen, X., J. M. Wallace and K.K. Tung (2017): Pair-wise rotated EOF of global SST anomaly. Journal of Climate. 30 5473. https://www.dropbox.com/scl/fi/lbetyziukmfemvkzpxsnu/Chen-Wallace-and-Tung-2017.pdf?rlkey=1mxase7c1q0f9bt2qtrx6rgud&dl=0

- X. Chen and K. K. Tung (2016): "Variations in ocean heat uptake during surface warming hiatus", Nature Communications, 7, https://doi.org/10.1038/ncomms12541

- K.-F. Li, Q. Zhang, K. K. Tung and Y.L. Yung (2016): "Resolving a long-standing model-observation discrepancy on ozone solar cycle response", Earth and Space Physics, 3, 431-440 https://agupubs.onlinelibrary.wiley.com/doi/10.1002/2016EA000199

- S. A. Sejas, Ming Cai, G. Liu, P. C. Taylor, and K. K. Tung (2016): "A Lagrangian View of Longwave Radiative Fluxes for Understanding the Direct Heating Response to a CO2 Increase", J. Geophys. Research, 121, https://doi.org/10.1002/2015JD024738

- J. Zhou, K. K. Tung and K.F. Li (2016): "Multidecadal variability in the Greenland ice-core records obtained using Intrinsic timescale Decomposition". Climate Dynamics, 47, 739-752 https://www.dropbox.com/scl/fi/cjnz7y2kq190eklzvzmo0/Zhou-et-al.-2016.pdf?rlkey=tgiaoqqedvoqrfq81bf2lmmy0&dl=0

- X.-H. Yan, Boyer, T., Trenberth, K. E., Karl, T., Xie, S.-P.,Nievas, V., Tung, K. K., Roemmich, D. (2016): "The global warming hiatus: Slowdown or redistribution?" Review. Earth's Future, 4, https://doi.org/10.1002/2016EF000417

- K.K. Tung and X. Chen (2015): "Global-warming slowdown---an energy perspective", Variations, 13, No. 3, 20-25
https://opensky.ucar.edu/islandora/object/usclivar%3A87/datastream/PDF/download/citation.pdf#page=20

- X. Chen and K.K. Tung (2014): "Varying planetary heat sink led to global-warming slowdown and acceleration", Science, 345, 897-903.
https://www.dropbox.com/scl/fi/ytjwermd3asnp6pxi08n2/Chen-and-Tung-2014-Science.pdf?rlkey=ltrz6z0yd6qa7w87dqiyzvssm&dl=0

- Li, K.-F., and K.K. Tung (2014): "Quasi-Biennial Oscillation and solar cycle influences on winter Arctic total ozone", J. Geophys. Res. Atmos., 119, 5823-5835.
https://agupubs.onlinelibrary.wiley.com/doi/10.1002/2013JD021065

- K. K. Tung and J. Zhou (2013): "Using Data to Attribute Episodes of Warming and Cooling in Instrumental Records", Proc. of National Academy of Sciences, 110.
http://depts.washington.edu/amath/faculty/tung/journals/Tung_and_Zhou_2013_PNAS.pdf

- J. Zhou and K. K. Tung (2013): "Observed Tropospheric Temperature Response to 11-year Solar Cycle and What It Reveals About Mechanisms", J. Atmospheric Sciences, 70, 9-14.
http://depts.washington.edu/amath/faculty/tung/journals/Zhou_and_Tung_2013_solar.pdf

- J. Zhou and K. K. Tung (2013): "Deducing Multidecadal Anthropogenic Global Warming Trends Using Multiple Regression Analysis", J. Atmospheric Sciences, 70, 3-8.
http://depts.washington.edu/amath/faculty/tung/journals/Zhou_and_Tung_2013_MLR.pdf

- E. Haam and K. K. Tung (2012): "Statistics of Solar Cycle-La Nina Connection: Correlation of Two Autocorrelated Time Series", J. Atmospheric Sciences, 69, 2934-2939.
http://depts.washington.edu/amath/faculty/tung/journals/Haam_and_Tung_2012.pdf

- M. Cai and K. K. Tung (2012): "Robustness of Dynamical Feedbacks from Radiative Forcing: 2% Solar vs 2 x CO2 Experiments in Idealized GCM", J. Atmospheric Sciences, 69, 2256-2271.
http://depts.washington.edu/amath/faculty/tung/journals/Cai_and_Tung_2012.pdf

- J. Zhou and K. K. Tung (2010): "Solar cycle in 150 years of global sea-surface temperature" J. Climate, 23, 3234-3248.
http://depts.washington.edu/amath/faculty/tung/journals/2010JCLI3232.pdf

- K. K. Tung and J. Zhou (2010): "Pacific's Response to Surface Heating in 130 Years of SST: El Nino like or La Nina like?" J. Atmospheric Sciences, 67, 2649-2657.
http://depts.washington.edu/amath/faculty/tung/journals/La-Nina-El-Nino.pdf

- E. Lindborg, K. K. Tung, G. D. Nastrom, J. Y. N. Cho and K. S. Gage (2010): "Comments on 'Reinterpreting Aircraft Measurement in Anisotropic Scaling Turbulence' by Lovejoy et al, (2009)" Atmospheric Chemistry and Physics, 10, 1401-1402.
http://depts.washington.edu/amath/faculty/tung/journals/acp-10-1401-2010.pdf

- L. Kuai, R.-L. Shia, X. Jiang, K. K. Tung, Y. L. Yung (2009): "Modulation of the Period of the Quasi-Biennial Oscillation by the Solar Cycle" Journal of the Atmospheric Sciences, 66, 2418-2428.
http://depts.washington.edu/amath/faculty/tung/journals/Kuai%20et%20al%202009.pdf

- L. Kuai, R.-L. Shia, X. Jiang, K. K. Tung, Y. L. Yung (2009): "Nonstationary Synchronization of Equatorial QBO with SAO in Observations and a Model" Journal of the Atmospheric Sciences, 66, 1654-1664.
  http://depts.washington.edu/amath/faculty/tung/journals/Kuai%20et%20al%202009b.pdf

- K.K. Tung, J. Zhou and C.D. Camp (2008): "Constraining Model Transient Climate Response using Independent Observations of Solar-Cycle Forcing and Response" Geophys. Research Lett., 35, L17707,doi:10.1029/2008GL034240.
  http://depts.washington.edu/amath/faculty/tung/journals/tung-zhou-camp08.pdf

- K.K. Tung and C.D. Camp (2008): "Solar Cycle Warming at the Earth's Surface in NCEP and ERA-40 data: A linear Discriminant Analysis" Journal of Geophysical Research, 113, D05114, doi:10.1029/2007JD009164.
  http://depts.washington.edu/amath/faculty/tung/journals/TungCamp08.pdf

- P. Fischer and K.K. Tung (2008): "A Reexamination of the QBO-Period Modulation by the Solar Cycle" J. Geophysical Research, 113, D07114, doi:10.1029/2007JD008983.
  http://depts.washington.edu/amath/faculty/tung/journals/FischerTung08.pdf

- P. Fischer and K.K. Tung (2008): "Wavelets, a Numerical Tool for Multiscale Phenomena: From Two-dimensional Turbulence to Atmospheric Data Analysis" J. Num. Anal. and Mod., accepted.

- E. Gkioulekas and K.K. Tung (2007): "A New Proof on Net Upscale Energy Cascade in 2D and QG Turbulence", J. Fluid Mech., 576, pp. 173-189, doi:10.1017/S0022112006003934.
  http://depts.washington.edu/amath/faculty/tung/journals/Gkioulekas-Tung07.pdf

- C.D. Camp and K.K. Tung (2007): "Surface Warming by the Solar Cycle as Revealed the Composite Mean Difference Projection" Geophysical Research Letters, 34, L14703, doi:10.1029/2007GL030207.
  http://depts.washington.edu/amath/faculty/tung/journals/GRL-solar-07.pdf

- K.K. Tung (2007): "Simple Climate Model" Discrete and Continuous Dynamical Systems B., 7, 651-660. http://depts.washington.edu/amath/faculty/tung/journals/tung07.pdf

- C.D. Camp and K.K. Tung (2007): "Stratospheric polar warming by ENSO in winter: A statistical study" Geophysical Research Letters, 34, L04809, doi:10.1029/2006GL028521, 2007.
  http://depts.washington.edu/amath/faculty/tung/journals/CampTung07GRL.pdf

- K.K. Tung and E. Gkioulekas (2007): "Is the subdominant part of the energy spectrum due to downscale energy cascade hidden in quasi-geostrophic turbulence? " DCDS B., 7, 293-314.
  http://depts.washington.edu/amath/faculty/tung/journals/inequality2.pdf

- C.D. Camp and K.K. Tung (2007): "The influence of the solar cycle and QBO on the late winter stratospheric polar vortex", J. Atmos. Sci., 64, 1267-1283, DOI:10.1175/JAS3883.1.

- K.T. Coughlin and K.K. Tung (2006): "Misleading Patterns in Correlation Maps" J. Geophys. Res., 111, D24102, doi:10.1029/2006JD007452.
  http://depts.washington.edu/amath/faculty/tung/journals/CoughlinTung06.pdf

- E. Gkioulekas and K.K. Tung (2006): "Recent developments in understanding two-dimensional turbulence and the Nastrom-Gage spectrum", J. Low Temp. Phys., 145, 25-57, DOI:10.1007/s10909-006-9239z.
  http://depts.washington.edu/amath/faculty/tung/journals/GkioulekasTung06.pdf

- K.T. Coughlin and K.K. Tung (2005): "Reply to Comments by Gleisner, Thejll and Christiansen", J. Geophys. Res., withdrawn.
  http://depts.washington.edu/amath/faculty/tung/journals/gt_response.pdf

- Y. Hu, K.K. Tung, and J. Liu (2005): "A closer comparison of early and late winter atmospheric trends in the Northern-Hemisphere" Journal of Climate, 18, 3204-3216.
  http://depts.washington.edu/amath/faculty/tung/journals/Hu-et-al05.pdf

- K. Coughlin and K.K. Tung (2005): "Empirical Mode Decomposition of Climate Variability in the Atmospheric" paper in Hilbert-Huang Transform: Introduction and Applications; edited by N. Huang and S. Shen; World Scientific Publishing.
  http://depts.washington.edu/amath/faculty/tung/journals/coughlin-tungHHT05.pdf

- E. Gkioulekas and K.K. Tung (2005): "On the Double Cascades of Energy and Enstrophy in Two-Dimensional Turbulence. Part 1. Theoretical Formulation" Discrete and Continuous Dynamical Systems B, 5, 79-102.
  http://depts.washington.edu/amath/faculty/tung/journals/Gkioulekas-Tung04a.pdf

- E. Gkioulekas and K.K. Tung (2005): "On the Double Cascades of Energy and Enstrophy in Two-Dimensional Turbulence. Part 2. Approach to the KLB Limit and Interpretation of Experimental Evidence" Discrete and Continuous Dynamical Systems B, 5, 103-124.
  http://depts.washington.edu/amath/faculty/tung/journals/Gkioulekas-Tung04b.pdf

- K. Coughlin and K.K. Tung (2004): "Eleven-Year Solar Cycle Signals throughout the Lower Atmosphere" J. Geophys. Res., 109, d21105, doi:10.1029/2004JD004873.
  http://depts.washington.edu/amath/faculty/tung/journals/coughlin-tung04solar.pdf

- K. Coughlin and K.K. Tung (2004): "Tropospheric Wave Response to Descending Decelerations in the Stratosphere" J. Geophys. Res., 110, D01103.
  http://depts.washington.edu/amath/faculty/tung/journals/CoughlinTung04.pdf

- K.K. Tung (2004): "Reply to Comments by K. Shafer Smith" J. Atmospheric Sciences, 61, 943-948. [Note typo: Second paragraph on page 943, 15th line, “energy” should be “enstrophy”.]

- K. Coughlin and K.K. Tung (2004): "The 11-Year Solar Cycle in the Lower Stratosphere Extracted by the Empirical Model Decomposition Method" Space Research, 34, 323-329.
  https://depts.washington.edu/amath/faculty/tung/journals/coughlin-tung04strat.solar.pdf

- K.K. Tung and W.W. Orlando (2003): "On the Differences between 2D and QG Turbulence" Discrete and Continuous Dynamical Systems B, 3, 145-162pp.
  https://depts.washington.edu/amath/faculty/tung/journals/TungOrlando03.pdf

- K.K. Tung and W.W. Orlando (2003): "The k-3 and k-5/3 Energy Spectrum of Atmospheric Turbulence, Quasi-Geostrophic Two-level Model Simulation" J. Atmos. Sci., 60, 824-835pp.
  https://depts.washington.edu/amath/faculty/tung/journals/spectrum.pdf

- Y. Hu and K.K. Tung (2003): "Possible Ozone Induced Long-Time Change in Planetary Wave Activity in Late Winter" J. Climate, 16, 3027-3038pp., 2003.

- Y. Hu and K.K. Tung (2002): "Interannual and Decadal Variations of Planetary - Wave Activity, Stratospheric Cooling, and Northern-Hemisphere Annular Mode" J. Climate, 15, 1659-1673.
https://depts.washington.edu/amath/faculty/tung/journals/interannual.pdf

- Y. Hu and K.K. Tung (2002): "Tropospheric and Equatorial Influences on Planetary-Wave Amplitude in the Stratosphere" Geophys. Research Letts., 29.
https://depts.washington.edu/amath/faculty/tung/journals/hu-tung02.pdf

- K. Coughlin and K.K. Tung (2001): "QBO Signal found at the Extratropical Surface through Northern Annular Modes" Geophys. Research Letts., 28, 4563-4566.
https://depts.washington.edu/amath/faculty/tung/journals/coughlin-tung01.pdf

- K.K. Tung and W.T. Welch (2001): "Remarks on Charney's Note on Geostrophic Turbulence" J. Atmos. Sci., 58, 2009-2012.
https://depts.washington.edu/amath/faculty/tung/journals/remarks.pdf

- J.S. Kinnersley and K.K. Tung (2001): "Mechanisms by Which Extra-tropical Wave Forcing in the Winter Stratosphere Induces Upwelling in the Summer Hemisphere" J. Geophys. Res., 106, 22781- .
https://depts.washington.edu/amath/faculty/tung/journals/tung-kinnersley2001.pdf

- M. Fang and K.K. Tung (1999): "Time-Dependent Nonlinear Hadley Circulation," J. Atmospheric Sci., 56, 1797-1807.
https://depts.washington.edu/amath/faculty/tung/journals/time-dependent.pdf

- J.S. Kinnersley and K.K. Tung (1999): "Mechanisms for the extra-tropical QBO in circulation and ozone column," J. Atmospheric Sci., 56, 1942-1962.
https://depts.washington.edu/amath/faculty/tung/journals/mechanisms.pdf

- W.T. Welch and K.K. Tung (1998): "On the equilibrium spectrum of transient waves in the atmosphere" J. Atmospheric Sci., 55, 2833-2851.
https://depts.washington.edu/amath/faculty/tung/journals/equilibrium.pdf

- J.S. Kinnersley and K.K. Tung (1998): "Modeling the global inter-annual variability of the ozone column due to the equatorial quasi-biennial oscillation and extra-tropical planetary wave variability" J. Atmospheric Sci., 55, 1417-1428.
https://depts.washington.edu/amath/faculty/tung/journals/modeling.pdf

- H. Yang and K.K. Tung (1998): "On water vapor, surface temperature and the Green house effect -- a statistical analysis of tropical-mean data" J. Climate, 11, 2686-2697.
https://depts.washington.edu/amath/faculty/tung/journals/watervapor.pdf

- W.T. Welch and K.K. Tung (1998): "Nonlinear baroclinic adjustment and wavenumber selection in a simple case" J. Atmospheric Sci., 55, 1205-1302.
https://depts.washington.edu/amath/faculty/tung/journals/nonlinear.pdf

- Y. Jiang, Y.L. Yung, A.R. Douglass, and K.K. Tung (1998): "The standard deviation of column ozone from the zonal mean," Geophys. Research. Lett. 25, 911-914.
https://depts.washington.edu/amath/faculty/tung/journals/jiang-etal98.pdf

- M. Fang and K.K. Tung (1997): "The dependence of the Hadley circulation on the thermal relaxation time," J. Atmospheric Sci., 54, 1379-1384.
https://depts.washington.edu/amath/faculty/tung/journals/dependence.pdf

- H. Yang and K.K. Tung (1996): "Cross-isentropic stratosphere-troposphere exchange of mass and water vapor," J. Geophys. Research, 101, 9413-9423.
https://depts.washington.edu/amath/faculty/tung/journals/yang-tung96.pdf

- M. Fang and K.K. Tung (1996): "A simple model of nonlinear Hadley circulation with an ITCZ: analytic and numerical solutions", J. Atmospheric Sciences, 53, 1241-1261. [Note: Typo in Eqs. (3) and (12). First term should be multiplied by 1/cos j. Correct equation used in calculation. Eq. (8) reverse TE and T.]
https://depts.washington.edu/amath/faculty/tung/journals/simplemodel.pdf

- H. Yang and K.K. Tung (1995): "On the phase propagation of extra-tropical quasi-biennial oscillation in observational data," J. Geophys. Research, 100, 9091-9100.
https://depts.washington.edu/amath/faculty/tung/journals/yang-tung95.pdf

- M.P. Baldwin and K.K. Tung (1994): "Extratropical QBO signals in Angular Momentum and Wave Forcing," Geophys. Research Lett., 21, 2717-2720.
https://depts.washington.edu/amath/faculty/tung/journals/baldwin-tung94.pdf

- H. Yang and K.K. Tung (1994): "Statistical significance and pattern of extratropical QBO in column ozone," Geophys. Research Lett, 21, 2236-2238.
https://depts.washington.edu/amath/faculty/tung/journals/yang-tung94.pdf

- K.K. Tung and H. Yang (1994): "Global QBO in Circulation and Ozone. Part II: A Simple Mechanistic Model," J. Atmos. Science, 51, 2708-2721. [Note: Top 4 panels of Figure 8 in Part II were incorrectly switched with the top 4 panels of Figure 3 in Part I.]
https://depts.washington.edu/amath/faculty/tung/journals/global2.pdf

- K.K. Tung and H. Yang (1994): "Global QBO in Circulation and Ozone. Part I: Reexamination of Observational Evidence," J. Atmos. Science, 51, 2699-2707.
https://depts.washington.edu/amath/faculty/tung/journals/global1.pdf

- M. Fang and K.K. Tung (1994): "Solution to the Charney problem of viscous symmetric circulation," J. Atmos. Sciences, 51, 1261-1272.
https://depts.washington.edu/amath/faculty/tung/journals/solution.pdf

- H. Yang and K.K. Tung (1993): "On Global Quasi-Biennial Oscillation in Column Ozone", in Coupling Processes in Middle and Lower Atmospheres, E.V. Thrane, T.A. Blix and D.C. Fritts, editors, 1-24, Kluwer Academic Publishers.

- E.P. Olaguer, H. Yang, and K.K. Tung (1992): "A reexamination of the radiative balance of the stratosphere", J. Atmos. Science, 49, 1242-1263.
https://depts.washington.edu/amath/faculty/tung/journals/reexamination.pdf

- H. Yang, E.P. Olaguer, and K.K. Tung (1991): "Simulation of the present-day ozone, odd nitrogen, chlorine and other species using a coupled 2-D model in isentropic coordinates", J. Atmospheric Science, 48, 442-471.
  https://depts.washington.edu/amath/faculty/tung/journals/simulation.pdf

- P. Cehelsky and K.K. Tung (1991): "Nonlinear baroclinic adjustment", J. Atmospheric Sciences, 48, 1930-1947.
  https://depts.washington.edu/amath/faculty/tung/journals/nonlinearbaroclinic.pdf

- H. Yang, K.K. Tung, and E.P. Olaguer (1990): "Nongeostrophic theory of zonally averaged circulation. Part II: E-P flux divergences and isentropic mixing coefficients", J. Atmospheric Sciences, 47, 215-241.
  https://depts.washington.edu/amath/faculty/tung/journals/nongeostrophic2.pdf

- P. Cehelsky and K.K. Tung (1989): "Reply to comments by Reinhold", Journal of Atmospheric Sciences, 46, 1865-1866.
  https://depts.washington.edu/amath/faculty/tung/journals/reply.pdf

- R.S. Lindzen and K.K. Tung (1988): "Comments on Shear Instability without Over-Reflection", Journal of Meteorological Society of Japan, 66, 179-184.

- K.K. Tung and H. Yang (1988): "Dynamical component of seasonal and year-to-year changes in Antarctic and global ozone", Journal of Geophysical Research, 93, 12537-12559.
  https://depts.washington.edu/amath/faculty/tung/journals/yangtung88.pdf

- K.K. Tung and H. Yang (1988): "Dynamic variability of column ozone", Journal of Geophysical Research, 93, 11123-11128.
  https://depts.washington.edu/amath/faculty/tung/journals/yangtung1988.pdf

- K.K. Tung and A.J. Rosenthal (1987): "Low-frequency nonlinear dynamics of quasi-geostrophic waves in a midlatitude channel and the effects of tropical influence", Journal of Atmospheric Sciences, 44, 3821-3826.
  https://depts.washington.edu/amath/faculty/tung/journals/tung-rosenthal87.pdf

- K.K. Tung (1987): "A coupled model of zonally averaged dynamics, radiation and chemistry", in Transport Processes in the middle Atmosphere, G. Visconti and R. Garcia, editors. 183-198, Reidel Publishing Company.

- P. Cehelsky and K.K. Tung (1987): "Theories of multiple equilibria and weather regimes, a critical re-examination. Part II: Baroclinic, Two-layer Models", Journal of Atmospheric Sciences, 44, 3282-3303.
  https://depts.washington.edu/amath/faculty/tung/journals/theories2.pdf

- M. Fantini and K.K. Tung (1987): "On radiating waves generated from barotropic shear instability of a western boundary current", Journal of Physical Oceanography, 17, 1304-1308.
  https://depts.washington.edu/amath/faculty/tung/journals/radiating.pdf

- K.K. Tung (1986): "Nongeostrophic theory of zonally averaged circulation, Part I: Formulation", Journal of Atmospheric Science, 43, 2600-2618.
  https://depts.washington.edu/amath/faculty/tung/journals/nongeostrophic1.pdf

- K.K. Tung (1986): "On the relationship between the thermal structure of the stratosphere and the seasonal distribution of ozone", Geophysical Research Letters, 13, 1308-1311, Special Issue of Antarctic Ozone. https://depts.washington.edu/amath/faculty/tung/journals/thermalstructure.pdf

- K.K. Tung, M.K.W. Ko, and J.M. Rodriguez (1986): "Are Antarctic ozone variations a manifestation of dynamics or chemistry?" Nature, Vol. 322, No. 6082, pp. 811-814.

- K.K. Tung and A.J. Rosenthal (1986): "On the extended-range predictability of large-scale quasi-stationary patterns in the atmosphere", Tellus, 38A, 333-365. https://depts.washington.edu/amath/faculty/tung/journals/rosenthaltung86.pdf

- K.K. Tung and A.J. Rosenthal (1985): "Theories of multiple equilibria, a critical re-examination, Part I: Barotropic models.", Journal of Atmospheric Sciences, 42, 2804-2819. https://depts.washington.edu/amath/faculty/tung/journals/theories1.pdf

- M.K.W. Ko, K.K. Tung, D.K. Weisenstein, and N.D. Sze (1985): "Simulation of 03 distribution using a two-dimensional zonal-mean model in isentropic coordinates", in Atmospheric Ozone, edited by C.S. Zerefos and A. Ghazi, Reidel Publishing Company, Dordrecht, Holland, 19-23.

- M.K.W. Ko, K.K. Tung, D.K. Weisenstein, and N.D. Sze (1985): "A zonal-mean model of stratospheric tracer transport in isentropic coordinates: Numerical simulations for nitrous oxide and nitric acid", Journal of Geophysical Research, 90, D1, 2313-2329. https://depts.washington.edu/amath/faculty/tung/journals/kotungetal.pdf

- K.K. Tung (1984): "Modeling of tracer transport in the middle atmosphere", in Dynamics of the Middle Atmosphere, edited by J.R. Holton and T. Matsuno, Terra Scientific Publishing Company, Tokyo, Japan, 417-444. https://depts.washington.edu/amath/faculty/tung/journals/tracertransport84.pdf

- K.K. Tung (1983): "Initial value problems for Rossby waves in a sheared flow with critical level", Journal of Fluid Mechanics, 133, 443-469. https://depts.washington.edu/amath/faculty/tung/journals/rossbywaves.pdf

- K.K. Tung (1983): "On the nonlinear vs. linearized lower boundary conditions for topographically forced stationary long waves", Monthly Weather Review, 111, 60-66. https://depts.washington.edu/amath/faculty/tung/journals/nonlinear-versus.pdf

- K.K. Tung (1982): "On the two-dimensional transport of stratospheric trace gases in isentropic coordinates", Journal of Atmospheric Sciences, 39, 2230-2355. https://depts.washington.edu/amath/faculty/tung/journals/two-dimensional.pdf

- K.K. Tung, T.F. Chang, and T. Kubota (1982): "Large amplitude internal waves of permanent form", Studies of Applied Mathematics, 66, 1-44. https://depts.washington.edu/amath/faculty/tung/journals/internalwaves.pdf

- K.K. Tung, J. Chang, D.R.S. Ko, and J. Chang (1982): "Weakly nonlinear internal waves in shear", Studies of Applied Mathematics, 65, 189-221. https://depts.washington.edu/amath/faculty/tung/journals/internalwaves82.pdf

- K.K. Tung (1981): "Barotropic instability of zonal flows", Journal of Atmospheric Sciences, 38, 308-321. https://depts.washington.edu/amath/faculty/tung/journals/barotropic.pdf

- B. Farrell, R.S. Lindzen, and K.K. Tung (1980): "The concept of wave over-reflection and its application to baroclinic instability", Journal of Atmospheric Sciences, 37, 44-63. https://depts.washington.edu/amath/faculty/tung/journals/concept.pdf

- K.K. Tung (1979): "A theory of stationary long waves, Part III: Quasi-normal modes in singular wave-guide", Monthly Weather Review, 107, 751-774. https://depts.washington.edu/amath/faculty/tung/journals/theory3.pdf

- K.K. Tung (1979): "A theory of stationary long waves, Part II: Resonant Rossby waves in the presence of realistic vertical shears", (with R.S. Lindzen), Monthly Weather Review, 107, 735-750. https://depts.washington.edu/amath/faculty/tung/journals/theory2.pdf

- K.K. Tung and R.S. Lindzen (1979): "A theory of stationary long waves, Part I: A simple theory of blocking", Monthly Weather Review, 107, 714-774. https://depts.washington.edu/amath/faculty/tung/journals/theory1.pdf

- R.S. Lindzen and K.K. Tung (1978): "Wave over-reflection and shear instability", Journal of Atmospheric Sciences, 35, 1626-1632. https://depts.washington.edu/amath/faculty/tung/journals/wave.pdf

- R.S. Lindzen and K.K. Tung (1976): "Banded convective activity and ducted gravity waves", Monthly Weather Review, 104, 1602-1617. https://depts.washington.edu/amath/faculty/tung/journals/banded.pdf

- K.K. Tung (1976): "On the convergence of spectral series-A re-examination of the theory of Wave propagations in distorted background flows", Journal of Atmospheric Sciences, 33, 1816-1820. https://depts.washington.edu/amath/faculty/tung/journals/convergence.pdf

Other Publications

- K.K. Tung (1977): "Stationary atmospheric long waves and the phenomena of blocking and sudden warming", Ph.D. Thesis, Harvard University, Cambridge, MA.

- K.K. Tung (1978): "Rossby wave critical layers, absorbing or reflecting?" in Proceedings of the (Twelfth) Stanstead Seminar, Publication in Meteorology No. 121, McGill University, 56-64.

- K.K. Tung (1978): "A theory of stationary long wave, in The General Circulation: Theory, Modeling and Observations, NCAR, Boulder, CO, 98-115.

- K.K. Tung and A.J. Rosenthal (1984): "On the initiation and persistence of blocking", in Proceedings of the (Fifteenth) Stanstead Seminar, McGill University Publication in Meteorology No. 128, 114-119.

- K.K. Tung (1988): "On multiple equilibria, multiple weather regimes, and low-frequency variability", in Dynamics of Low-Frequency Variability in the Atmosphere, NCAR, Boulder, CO.

- K.K. Tung (1988): "Irreversible Phenomena and Dynamical Systems Analysis in Geosciences", Book Review, Bulletin of the American Meteorological Society, 69, 196-197.

- K.K. Tung, H. Yang and E.P. Olaguer (1988): "Two-D model simulation of ozone climatology and year-to-year variations", in Proc. of Quadrennial Ozone Symposium.
  https://depts.washington.edu/amath/faculty/tung/journals/tungyangolaguer88.pdf

- C.R. Mechoso and K.K. Tung (1989): "On the Antarctic ozone hole phenomenon", in Invited Papers, Proceedings of Third International Congress of Meteorology, Buenos Aires, Argentina.

- K.K. Tung (1990): "Ozone Transport in the Southern Hemisphere", in Dynamics, Transport and Photochemistry in the Middle Atmosphere of the Southern Hemisphere, A. O'Neill ed., 213-215, Kluwer Academic Publishers.
  https://depts.washington.edu/amath/faculty/tung/journals/ozonetransport.pdf

- K.K. Tung (2014): "Where has global warming gone?" Project Syndicate.