

Kevin Robert Gurney

School of Informatics, Computing, and Cyber Systems | Northern Arizona University
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EDUCATION

Ph.D. 2004 – Ecology, Colorado State University
M.P.P 1996 – Public Policy, University of California, Berkeley
S.M. 1990 – Meteorology, Massachusetts Institute of Technology
B.A. 1986 – Environmental Physics, University of California, Berkeley

PROFESSIONAL EXPERIENCE

Professor, School of Informatics, Computing and Cyber Systems, Northern AZ Univ, Aug 2018-present
Professor, Honors Faculty, School of Life Sciences, Arizona State University, Aug 2017 – Aug 2018
Associate Professor, Honors Faculty, School of Life Sciences, Arizona State University, Aug 2010 – Aug 2017
Affiliated Faculty, School of Geographical Sciences and Urban Planning, Mar 2013 – Aug 2018
Graduate Faculty, School of Sustainability, Arizona State University, Jan 2013 – Aug 2018
Senior Sustainability Scientist, Global Institute of Sustainability, Arizona State Univ, Aug 2010 – Aug 2018
Associate Professor, Dept of Earth and Atmos Sci & Dept of Agronomy, Purdue University, Aug 2009 – Aug 2010
Assistant Professor, Dept of Earth and Atmos Sci & Dept of Agronomy, Purdue University, Aug 2005 – Aug 2009
Associate Director, Purdue Climate Change Research Center, Purdue University, Aug 2005 – Aug 2008
Research Scientist I, Department of Atmospheric Science, Colorado State University, July 1998 – Aug 2005
Staff Research Associate, Bren School of Env. Sci and Mngmnt, Univ of Ca, Santa Barbara, Apr 97 – June 98
Senior Scientist, Institute for Energy and Environmental Research, Sept 1992 – Jan 1997
Research Associate, Atmospheric and Environmental Research, Inc., Feb 1992 – Sept 1992
Research Associate, Tellus Institute, February 1990 - October 1991
Research Assistant, National Oceanic and Atmospheric Administration, Summer 1988
Research Intern, Environmental Sciences Division, Lawrence Livermore National Lab, 11/86- 9/87
Student Assistant, Atmospheric Aerosol Research Group, Lawrence Berkeley National Lab, 2/85-10/86

HONORS AND AWARDS

Fulbright U.S. Scholar award, 2019
IPCC Lead Author, 6th Assessment Report
Nominated for AGU's Macelwane Medal 2014
Sigma Xi Young Investigator's Award 2010
NSF CAREER Award 2009
Named 2007 "Air Conservationist of the Year", from the Indiana Wildlife Federation

UNIVERSITY SERVICE

Graduate Degree Program in Ecology executive committee 1999-2000
Graduate Degree Program in Ecology, Front Range Student Ecology Symposium Chairman 1999-2000
Undergraduate Programs Committee, ASU: 2013 - 2017
ASU Safety Committee: 2010 – 2013, 2017 - 2018
ASU Diversity Committee, Purdue University, Aug 2005 – Aug 2010
NAU CEIAS Promotion & Tenure Committee, November 2020 – present
NAU SICCS Graduate Recruiting Committee, September 2019 – present
NAU CEIAS COFS redesign committee, September 2019 - present

OTHER NATIONAL OR INTERNATIONAL PROFESSIONAL SERVICE

Environmental Research Letters Advisory Panel, 3/2022 - **present**
Author, 5th National Climate Assessment (NCA5), 3/2022 - **present**

IPCC lead author/contributing author/reviewer, 2nd through 6th Assessments (IPCC was organizational co-recipient of 2007 Nobel Peace Prize)

Chapter co-lead State of the Carbon Cycle Report 2, June 2016 - 2020

World Meteorological Organization, GURME Science Advisory Group, 2019 - **present**

World Meteorological Organization, IG³IS Science Advisory Group, 2017 - **present**

Integrated Greenhouse Gas Information System (IG³IS) Committee Member, 2016 - **present**

Carbon cycle science steering working group (CCSWG) to Carbon science interagency working group (CCIWG) (retired)

Global Carbon Program Science Steering Committee: 2008 - 2013

NOAA Global Carbon Cycle Scientific Steering Committee, 2006 - present

Carbon Management, Editorial Board, 2009 - **present**

MCI Task Force Committee member, 2005 – 2017

Carbon Balance and Management, Editorial Board member, 2006 - **present**

Carbon Dioxide Information Analysis Center, external advisory committee member, 2007 - 2018

United Nations Framework Convention on Climate Change attendee/advisor 1996-**present**

PROFESSIONAL SOCIETY

American Geophysical Union member since 1990

Sigma Xi member since 2000

Phi Kappa Phi lifetime member since 2004

Ecological Society of America member since 2004

PEER-REVIEWED PUBLICATIONS

2022

153. Pitt, J.R., I. Lopez-Coto, K.D. Hajny, J. Tomlin, R. Kaeser, T. Jayarathne, B.H. Stirm, C.R. Floerchinger, C.P. Loughner, R. Commane, C.K. Gatley, L.R. Hutyrá, **K.R. Gurney**, G.S. Roest, J. Liang, S. Gourdjí, A. Karion, J.R. Whetstone, P.B. Shepson (2021) New York City Greenhouse Gas Emissions Estimated with Inverse Modelling of Aircraft Observations, *Elem Sci Anth*, 10:1. DOI: <https://doi.org/10.1525/elementa.2021.00082>.
152. Moran, D. et al. (2021) Estimating CO₂ Emissions for 108,000 European Cities, *Earth System Science Data*, 14, 845–864, <https://doi.org/10.5194/essd-14-845-2022>.

2021

151. Laughner, J.L., J.L. Neu, D.S. Schimel, P.O. Wennberg, K. Barsanti, K.W. Bowman, A. Chatterjee, B. Croes, H. Fitzmaurice, D.K. Henze, J. Kim, E.A. Kort, Z. Liu, K. Miyazaki, A.J. Turner, S. Anenberg, J. Avise, H. Cao, D. Crisp, J.A. de Gouw, A. Eldering, J.C. Fyfe, D.L. Goldberg, **K.R. Gurney**, S. Hasheminassab, F.M. Hopkins, C. Ivey, D.B.A. Jones, N.S. Lovenduski, R.V. Martin, G.A. McKinley, L. Ott, B. Poulter, M. Ru, S. P. Sander, N. Swart, Y.L. Yung, Z.-C. Zeng (2021) Societal shifts due to COVID-19 reveal large-scale complexities and feedbacks between atmospheric chemistry and climate change, *Proceedings of the National Academy of Sciences*, 118(46), <https://doi.org/10.1073/pnas.2109481118>.
150. Stokes, E., M.O. Roman, Z. Wang, C. Kyba, S.D. Miller, T. Starch, **K.R. Gurney** (2021) Retired satellites: A chance to shed light (commentary), *Science*, 373 (6562), <https://doi.org/10.1126/science.abl9965>
149. Wu, K., K. Davis, N. Miles, S. Richardson, T. Lauvuax, D. Sarmiento, N. Balashov, K. Keller, J. Turnbull, **K. Gurney**, J. Liang, G. Roest (2021) Evaluating an emissions inventory using atmospheric CO₂ flux measurements and source partitioning in a suburban environment, *submitted to Geophys. Res. Lett.*
148. **Gurney, K.R.** and P. Shepson (2021) The power and promise of improved climate data infrastructure, *Proceedings of the National Academy of Sciences*, 118 (35), www.pnas.org/content/118/35/e2114115118
147. Roest, G., **K.R. Gurney**, Rayner, P.J. (2021) Utility-based energy consumption to improve urban building-scale CO₂ emissions, *submitted to Env. Sci. & Tech.*
146. Luqman, M., P.J. Rayner, **K.R. Gurney** (2021) On the role of urbanisation in driving CO₂ emissions, *for resubmission to Env. Sci. & Tech.*

145. **Gurney, K.R.**, S. Killis, K. Seto, S. Lwasa, D. Moran, K. Riahi, M. Keller, P. Rayner, M. Luqman (2021) Greenhouse Gas Emissions from Global Cities Under SSP/RCP Scenarios, 1990 to 2100, *accepted to Global Environmental Change*.
144. Yadav, V., S. Ghosh, K. Mueller, A. Karion, G. Roest, S. Gourdji, I. Lopez-Coto, **K.R. Gurney**, K. Verhulst, J. Kim, M. Stock, E. DiGangi, S. Prinzivalli, C. Fain, R. Keeling, R. Weiss, R. Duren, C. Miller, J. Whetstone (2021) The impact of COVID-19 on CO₂ emissions in the Los Angeles and Washington DC/Baltimore metropolitan areas, *Geophys. Res. Lett.* <https://doi.org/10.1029/2021GL092744>
143. Laughner, J.L., J.L. Neu, D.S. Schimel, P.O. Wennberg, K. Barsanti, K.W. Bowman, A. Chatterjee, B. Croes, H. Fitzmaurice, D.K. Henze, J. Kim, E.A. Kort, Z. Liu, K. Miyazaki, A.J. Turner, S. Anenberg, J. Avise, H. Cao, D. Crisp, J.A. de Gouw, A. Eldering, J.C. Fyfe, D.L. Goldberg, **K.R. Gurney**, S. Hasheminassab, F.M. Hopkins, C. Ivey, D.B.A. Jones, N.S. Lovenduski, R.V. Martin, G.A. McKinley, L. Ott, B. Poulter, M. Ru, S. P. Sander, N. Swart, Y.L. Yung, Z-C. Zeng (2021) The 2020 COVID-19 pandemic and atmospheric composition: back to the future, *Earth and Space Science Open Archive*, <https://doi.org/10.1002/essoar.10506081.1>
142. Hajny, K.D., R. Kaeser, T. Jayarathne, J. Tomlin, J. Pitt, P.B. Shepson, B.H. Stirm, C. Floerchinger, C. Gately, M. Sargent, S. Wofsy, **K.R. Gurney**, A. Karion, I. Lopez-Coto, A. Turner (2021) Estimating Anthropogenic CO₂ Emissions from New York City Using Aircraft Measurements and Dispersion Modeling, *in preparation*.
141. **Gurney, K.R.**, B. Mitra, G. Roest, P. Dass, Y. Song, T. Moiz (2021) Impact and rebound of near real-time United States fossil fuel carbon dioxide emissions from COVID-19 and large differences with global estimates, <https://eartharxiv.org/repository/view/2266/>.
140. **Gurney, K.R.**, B. Mitra, G. Roest, P. Dass, Y. Song, T. Moiz (2021) Impact and rebound of near real-time United States fossil fuel carbon dioxide emissions from COVID-19 and large differences with global estimates, *under review at Earth's Future*.
140. Mueller, K. T. Lauvaux, **K.R. Gurney**, P. DeCola, S. Gourdji, G. Roest, J. Whetstone (2021) An Emerging GHG estimation approach can help cities achieve their climate and sustainability goals, *Environ. Res. Lett.*, <https://doi.org/10.1088/1748-9326/ac0f25>
139. Berelson, W.M., N. Rollins, A.J. West, G. Ban-Weiss, J. Ko, **K.R. Gurney**, and R. Cohen (2021) Atmospheric Radon, CO₂ and Methane Define a Decrease in Los Angeles CO₂ Emissions during COVID-19 Shutdown, *under review at Env.Sci & Tech*.
138. Addington, O., Z-C. Zeng, T. Pongetti, R-L. Shia, **K.R. Gurney**, J. Liang, G. Roest, Y.L. Yung, S.P. Sander (2021) Estimating Nitrous Oxide (N₂O) Emissions for the Los Angeles Megacity Using Mountaintop Remote Sensing Observations, *Remote Sensing of the Environment*, 259, 112351, <https://doi.org/10.1016/j.rse.2021.112351>.
137. Miles, N.L., K.J. Davis, S.J. Richardson, T. Lauvaux, D.K. Martins, A.J. Deng, N. Balashov, **K.R. Gurney**, J. Liang, G. Roest, J.A. Wang, and J.C. Turnbull (2021): The influence of near-field fluxes on seasonal CO₂ enhancements: Results from the Indianapolis Flux Experiment (INFLUX). *Carbon Balance Management*, 16:4, <https://doi.org/10.1186/s13021-020-00166-z>.
136. **Gurney, K.R.**, J. Liang, G. Roest, Y. Song, K. Mueller, T. Lauvaux (2021) Under-reporting of greenhouse gas emissions in U.S. cities, *Nature Communications*, 12(1), 1-7, <https://www.nature.com/articles/s41467-020-20871-0>

2020

135. Mallia, D., L. Mitchell, L. Kunik, B. Fasoli, R. Bares, **K.R. Gurney**, D. Mendoza, J.C. Lin (2020) Constraining urban CO₂ emissions using mobile observations derived from a novel light-rail public transit platform, *Environ., Sci. & Tech.*, <https://dx.doi.org/10.1021/acs.est.0c04388>.
134. Song, Y., **K.R. Gurney** (2020) The relationship between on-road FFCO₂ emissions and socio-economic/urban form factors for global cities: significance, robustness, and implications, *Sustainability*, 12, 6028; <https://doi.org/10.3390/su12156028>.
133. Roest, G., **K.R. Gurney**, S.M. Miller, and J. Liang (2020) Informing urban climate planning with high resolution data: the Hestia fossil fuel CO₂ emissions for Baltimore, Maryland, *Carbon Balance and Management*, 15:22, <https://doi.org/10.1186/s13021-020-00157-0>.
132. **Gurney, K.R.**, Y. Song, J. Liang, G. Roest (2020) Towards accurate, policy-relevant fossil fuel CO₂ emission landscapes, *Env. Sci. & Tech*, 54, 16, 9896-9907, <https://doi.org/10.1021/acs.est.0c01175>.
131. Ruti, P., O. Tarasova, J. Keller, C. Carmichael, O. Hov, S. Jones, D. Terblanche, C. Anderson, A. Barros, P. Bauer, V. Bouchet, G. Brasseur, B. Brunet, P. DeCola, V. Dike, M.D. Kane, C. Gan, **K. Gurney**, S. Hamburg,

- W. Hazeleger, M. Jean, D. Johnston, A. Lewis, P. Li, X. Liang, V. Lucarini, A. Lynch, E. Manaenkova, J.-C. Nam, S. Ohtake, N. Pinardi, J. Polcher, E. Ritchie, A.E. Sakya, C. Saulo, A. Singhee, A. Sopaheluwakan, A. Steiner, A. Thorpe, M. Yamji (2020) Advancing Research for Seamless Earth System Prediction, *Bulletin of the American Meteorological Society*, <https://doi.org/10.1175/BAMS-D-17-0302.1>, January 20, 2020.
130. **Gurney, K.R.**, J. Liang, R. Patarasuk, Y. Song, J. Huang, and G. Roest (2020) Vulcan: High-Resolution Annual Fossil Fuel CO₂ Emissions in USA, 2010-2015, Version 3. ORNL DAAC, Oak Ridge, Tennessee, USA. <https://doi.org/10.3334/ORNLDAAC/1741>.
129. **Gurney, K.R.**, J. Liang, R. Patarasuk, Y. Song, J. Huang, G. Roest (2020) The Vulcan Version 3.0 High-Resolution Fossil Fuel CO₂ Emissions for the United States. *Journal of Geophysical Research: Atmospheres*, 125, 19, e2020JD032974. <https://doi.org/10.1029/2020JD032974>.
128. Basu S., S.J. Lehman, J.B. Miller, A.E. Andrews, C. Sweeney, **K.R. Gurney**, X. Xu, J. Southon, P. Tans (2020) Estimating US Fossil Fuel CO₂ Emissions from Measurements of ¹⁴C in Atmospheric CO₂, *Proceedings of the National Academy of Sciences*, June 16, 2020 117 (24) 13300-13307; first published June 1, 2020 <https://doi.org/10.1073/pnas.1919032117>.
127. Ahn, D., J. Hansford, S. Howe, X. Ren, R. Salawitch, N. Zeng, M. Cohen, B. Stunder, O. Salmon, P.B. Shepson, **K.R. Gurney**, T. Oda, I. Lopez-Coto, J. Whetstone, R.R. Dickerson (2020) Fluxes of Atmospheric Greenhouse-Gases in Maryland (FLAGG-MD): Emissions of Carbon Dioxide in the Baltimore, MD-Washington, DC area, *J. Geophys. Res.*, <https://doi.org/10.1029/2019JD032004>.
126. Strandgren, J., D. Krutz, J. Wilzewski, C. Paproth, I. Sebastien, **K.R. Gurney**, J. Liang, A. Roiger, A. Butz (2020) Towards space-borne monitoring of localized CO₂ emissions: an instrument concept and first performance assessment, *Atmospheric Measurement Techniques*, 13, 2887-2904, <https://amt.copernicus.org/articles/13/2887/2020/>.
125. Lauvaux, T., **K.R. Gurney**, N.L. Miles, K.J. Davis, S.J. Richardson, A. Deng, B.J. Nathan, T. Oda, J.A. Wang, L.R. Hutyrta, J.C. Turnbull (2020) Policy-relevant assessment of urban greenhouse gas emissions, *Environ. Sci. Technol.* 54, 16, 10237–10245 <https://doi.org/10.1021/acs.est.0c00343>
124. Park, C., Park, S.-Y., K.R. Gurney, C. Gerbig, J.P. DiGangi, Y. Choi, H.W. Lee (2020) Numerical simulation of atmospheric CO₂ concentration and flux over the Korean Peninsula using WRF-VPRM model during Korus-AQ 2016 Campaign, *PLoS ONE*, 15(1): e0228106, <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0228106>
- 2019**
123. Turnbull, J.C., A. Karion, K.J. Davis, T. Lauvaux, N.L. Miles, S.J. Richardson, C. Sweeney, K. McKain, S.J. Lehman, **K.R. Gurney**, R. Patarasuk, J. Liang, P.B. Shepson, A. Heimbürger, R. Harvey, J. Whetstone (2019), Synthesis of Urban CO₂ Emission Estimates from Multiple Methods from the Indianapolis Flux Project (INFLUX), *Environ. Sci. & Technol.*, 53, 287-295, <https://doi.10.1021/acs.est.8b05552>
122. Luqman, M., P. Rayner, **K.R. Gurney** (2019) Combining measurements of Built-up area, Nighttime Light and Travel distance for detecting change in Urban Boundaries: Introducing BUNTUS Algorithm, *Remote Sensing*, 11(24), 2969; <https://doi.org/10.3390/rs11242969>.
121. Nathan, B., T. Lauvaux, J. Turnbull, **K.R. Gurney** (2019) Model output for determining sector-based CO₂ emissions in both pseudodata and real-data inversion analyses of Indianapolis for January-April 2015, datacommons@psu, doi:10.26208/rbrk-5q41.
120. Feng, S., T. Lauvaux, K.J. Davis, K. Keller, P. Rayner, T. Oda, **K.R. Gurney**, Y. Zhou, C. Williams, A. E. Schuh, J. Liu, I. Baker (2019) Ensemble model output of North American atmospheric CO₂ simulation (full WRF-chem output), Data set. Available online from The Pennsylvania State University Data Commons, University Park, Pennsylvania, USA, doi:10.26208/7a4p-q224.
119. Kunik, L. D.V. Mallia, **K.R. Gurney**, D.L. Mendoza, T. Oda, J.C. Lin (2019) Bayesian inverse estimate of urban CO₂ emissions: results from a synthetic data simulation over Salt Lake City, UT, *Elementa: Science of the Anthropocene*, 7: 36. DOI: <https://doi.org/10.1525/elementa.375>.
118. Wang, Y., P. Ciais, G. Broquet, F.-M. Breon, T. Oda, F. Lespinas, Y. Meijer, A. Loeschner, G. Janssens-Maenhout, B. Zheng, H. Xu, S. Tao, **K.R. Gurney**, G. Roest, D. Santaren, Y. Su (2019) A global map of emission clumps for future monitoring of fossil fuel CO₂ emissions from space, *Earth Syst. Sci. Data*, 11, 1-17, <https://essd.copernicus.org/articles/11/687/2019/>.
117. He, L., Z.-C. Zeng, T. Pongetti, C. Wong, J. Liang, **K. Gurney**, S. Newman, V. Yadav, K. Verhulst, C. Miller, R. Duren, C. Frankenberg, P. Wennberg, R.-L. Shia, Y. Yung (2019) Atmospheric methane

emissions correlate with natural gas consumption from residential and commercial sectors in Los Angeles, *Geophys. Res. Lett.*, 46, 8563-8571, <https://doi.org/10.1029/2019GL083400>.

116. **Gurney, K.R.**, Liang, J, D.O. O’Keeffe, R. Patarasuk, M. Hutchins, J. Huang, P. Rao, and Y. Song (2019) Comparison of Global Downscaled Versus Bottom-Up Fossil Fuel CO₂ Emissions at the Urban Scale in Four US Urban Areas, *J. Geophys. Res.-Atmos.*, 124, 2823-2840, <https://doi.org/10.1029/2018JD028859>.
115. **Gurney, K.R.**, R. Patarasuk, J. Liang, D. O’Keeffe, P. Rao, Y Song (2019) The Hestia Fossil Fuel CO₂ Emissions Dataset for the Los Angeles Basin, *Earth System Science Data*, 11, 1-27, <https://essd.copernicus.org/articles/11/1309/2019/>.
114. Feng, S., T. Lauvaux, K. Keller, K.J. Davis, P. Rayner, T. Oda, **K.R. Gurney** (2019) A road map for improving the treatment of uncertainties in high-resolution regional carbon flux inverse estimates, *Geophys. Res. Lett.*, 46. <https://doi.org/10.1029/2019GL082987>.
113. Cui, X., S. Newman, X. Xu, A.E. Andrews, J. Miller, S. Lehman, S. Jeong, J. Zhang, C. Priest, M. Campos-Pineda, **K.R. Gurney**, H. Graven, J. Southon, M.L. Fischer (2019) Atmospheric Observation-based Estimation of Fossil Fuel CO₂ Emissions from Regions of Central and Southern California, *Science of the Total Environment*, 664, 381-391, <https://doi.org/10.1016/j.scitotenv.2019.01.081>.
112. Nangini, C, A. Peregón, P. Ciais, U. Weddige, F. Vogel, J. Wang, F-M. Breon, S. Bachra, Y. Wang, **K. Gurney**, Y. Yamagata, K. Appleby, S. Telahoun, P.G.. Canadell, A. Grubler, S. Dhakal, F. Creutzig (2019) A global dataset of city CO₂ emissions and ancillary data related to emission for 343 cities, *Scientific Data*, 6, Article number: 180280. <https://doi.org/10.1038/sdata.2018.280>.
111. Martin, C.R., N Zeng, A. Karion, K. Mueller, S. Ghosh, I. Lopez-Coto, **K.R. Gurney**, T. Oda, K. Prasad, Y. Liu, R.R. Dickerson, J. Whetstone (2019) Investigating Sources of Variability and Error in Simulations of Carbon Dioxide in an Urban Region, *Atmos. Env.*, 199, 55-69. <https://doi.org/10.1016/j.atmosenv.2018.11.013>.

2018

110. Hedelius, J., J. Liu, T. Oda, S. Maksyutov, C.M. Roehl, L.T. Iraci, J.R. Podolske, P.W. Hillyard, J. Liang, **K.R. Gurney**, D. Wunch, P.O. Wennberg (2018) Southern California Megacity CO₂, CH₄, and CO flux estimates using ground and space-based remote sensing and a Lagrangian model, *Atmos. Chem. and Physics*, 18, 16271-16291, <https://doi.org/10.5194/acp-18-16271-2018>
109. Nathan, B.J., T. Lauvaux, J. Turnbull, S.J. Richardson, N.L. Miles, **K.R. Gurney** (2018) Source Sector Attribution of CO₂ Emissions in an Urban Multi-species Bayesian Inversion System, *J. Geophys. Res.* 123(23), 13611-13621. <https://doi.org/10.1029/2018JD029231>
108. Liu, J., K. Bowman, D. Schimel, N. Parazoo, Z. Jiang, M. Lee, A. Bloom, D. Wunch, **K.R. Gurney**, D. Menemenlis, M. Girerach, D. Crisp, A. Eldering (2018) Responses to Comment on “Contrasting carbon cycle responses of the tropical continents to the 2015-2016 El Niño”, *submitted to Science*.
107. Park, C., Park, C. Gerbig, S. Newman, R. Ahmadov; S. Feng, **K.R. Gurney**, G.R. Carmichael, S-Y. Park, H-W. Lee, M. Goulden, J. Stutz, J. Peischl, T. Ryerson (2018) CO₂ transport, variability and budget over the Southern California Air Basin using high resolution WRF-VPRM model during CalNex 2010 Campaign, *Journal of Applied Meteorology and Climatology*, 57 (6), 1337-1352. <https://doi.org/10.1175/JAMC-D-17-0358.1>.
106. Lin, J. L. Mitchell, E. Crosman, D. Mendoza, M. Buchert, R. Bares, B. Fasoli, D. Bowling, D. Pataki, D Catharine, C. Strong, **K.R. Gurney**, R. Patarasuk, M. Baasandorj, A. Jacques, S. Hoch, J. Horel, J. Ehleringer (2018) CO₂ and carbon emissions from cities: linkages to air quality, socioeconomic activity and stakeholders in the Salt Lake City urban area, *Bulletin of the American Meteorological Society*, November 2018, 2325-2339. <https://doi.org/10.1175/BAMS-D-17-0037.1>
105. Salmon, O.E., P.B. Shepson, X. Ren, H. He, R.R. Dickerson, B.H. Stirm, S.S. Brown, D.L. Fibiger, E.E. McDuffie, T.L. Campos, **K.R. Gurney**, J.A. Thornton (2018) Top-down Estimates of NO_x and CO Emissions from Washington, D.C.-Baltimore During the WINTER Campaign, *Journal of Geophysical Research.*, <https://doi.org/10.1029/2018JD028539>.
104. Graven, H., M.L. Fischer, T. Lueker, S. Jeong, T.P. Guilderson, R.F. Keeling, R. Bambha, K. Brophy, W. Callahan, X. Cui, C. Frankenberg, **K.R. Gurney**, B.W. LaFranchi, S.J. Lehman, H. Michelsen, J.B. Miller, S. Newman, W. Paplawsky, N.C. Parazoo, C. Sloop, S.J. Walker (2018) Assessment of Fossil Fuel CO₂ Emission in California Using Atmospheric Observations and Models, *Environ. Res. Lett.*, 13 065007. <https://doi.org/10.1088/1748-9326/aabd43>.

103. Liu, J, K. Bowman, N. Parazoo, A. Anthony, D. Wunch, J. Zhe, **K.R. Gurney**, D. Schimel (2018) Detecting drought impact on terrestrial biosphere carbon fluxes over contiguous US with satellite observations, *Env. Res. Lett.*, 13 (9) 095003. <https://doi.org/10.1088/1748-9326/aad5ef>.
102. Nathan, B., T. Lauvaux, J. Turnbull, **K.R. Gurney** (2018) Investigations Into the Use of Multi-Species Measurements for Source Apportionment of the Indianapolis Fossil Fuel CO₂ Signal, *Elem Sci Anth.* 6(1):21. DOI: <http://doi.org/10.1525/elementa.131>
101. Wu, K., T. Lauvaux, K.J. Davis, A. Deng, I. Lopez Coto, **K.R. Gurney**, R. Patarasuk (2018) Joint inverse estimation of fossil fuel and biogenic CO₂ fluxes in an urban environment: An observing system simulation experiment, *Elem. Sci. Anth.* 6(1):17. DOI: <http://doi.org/10.1525/elementa.138>
100. Mitchell, L., J.C. Lin, D.R. Bowling, D.E. Pataki, C. Strong, A.J. Schauer, R. Bares, S.E. Bush, B.B. Stephens, D. Mendoza, D. Mallia, L. Holland, **K.R. Gurney**, J.R. Ehleringer (2018) Long-term urban carbon dioxide observations reveal spatial and temporal dynamics related to urban characteristics and growth, *Proceedings of the National Academy of Sciences*. March 5, 2018, <https://doi.org/10.1073/pnas.1702393115>

2017

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