Kevin Robert Gurney

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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
Chief Technology Officer, Crosswalk Labs, Dec 2021-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 (organizational co-recipient of 2022 Gulbenkian Prize for Humanity)
IPCC Contributing Author, 4th Assessment Report (organizational co-recipient of the 2007 Nobel Peace Prize)
Sigma Xi Young Investigator's Award 2010
NSF CAREER Award 2009
Named 2007 "Air Conservationist of the Year", from the Indiana Wildlife Federation

CURRENT FUNDING

Department of Energy Southwest Integrated Urban Field Laboratory: 9/2022 – 9/2027, $25 million (NAU: $4.75 million)
National Institute for Standards and Technology: 9/2023 – September 2026, $1,559,044 (all NAU)
Builders Vision/Grantham Foundation: 9/2022 – 9/2024, $950,000 (all NAU)

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 – 2020

NAU SICCS BSI committee, September 2019 - present

OTHER NATIONAL OR INTERNATIONAL PROFESSIONAL SERVICE

National Academy of Sciences, Engineering and Mathematics, Board on Atmospheric Sciences and Climate, member, 11/2023 - **present**

National Academy of Sciences, Engineering and Mathematics report committee: "Greenhouse Gas Emissions Information for Decisionmaking", 6/2022 – 11/2022

Environmental Research Letters Advisory Panel, 3/2022 - **present**

Author, 5th National Climate Assessment (NCA5), 3/2022 – 8/2023

IPCC lead author/contributing author/reviewer, 2nd through 6th Assessments

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

World Meteorological Organization, GURME Science Advisory Group, 2019 – 9/2023

International Carbon Observing System, Cities effort, 2021 - **present**

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

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

VERIFY scientific advisory board, 2018 - **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 - 2015

MCI Task Force Committee member, 2005 – 2017

Carbon Balance and Management, Editorial Board member, 2006 - 2013

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

Total cites: 16012 (Google Scholar, 12/4/2023)

h-index: 59 (Google Scholar, 12/4/2023)

2023

160. Roest, G., K. Gurney, E. Vogel, and H. Kenion. Hestia Fossil Fuel Carbon Dioxide ($FFCO_2$) Data Product - Indianapolis, Version 3.2, 20m Grid at Flux Towers. Penn State Data Commons, 2023. https://doi.org/10.26208/H62J-4004.
159. Zeng, Z-C., Pongetti, T., Newman, S., Oda, T., Gurney, K., Yung, Y., Palmer, P., Yjng, Y.L., Sander, S.P. (2023) Decadal decrease in Los Angeles methane emissions is much smaller than bottom-up estimates, *Nature Communications,* **14**:5353, https://doi.org/10.1038/s41467-023-40964-w.
158. Urrace, R. et al. (2023) CoCO2-MOSAIC 1.0: a global mosaic of regional, gridded, fossil and biofuel CO2 emission inventories, *Earth Systems Science Data*, https://doi.org/10.5194/essd-2023-210.
157. Roest, G., **K.R. Gurney**, Rayner, P.J. (2023) Utility-based energy consumption to improve urban building-scale CO_2 emissions, *in preparation*

156. **Gurney, K.R.,** B. Mitra, G. Roest, P. Dass, Y. Song, T. Moiz (2023) Impact and rebound of near real-time United States fossil fuel carbon dioxide emissions from COVID-19 and large differences with global estimates, *in preparation.*

155. Kato, A., **K.R. Gurney**, J. Whetstone (2023) Exploring differences in $FFCO_2$ emissions in the United States: Comparison of the Vulcan data product and the EPA national GHG inventory, *Environmental Research Letters,* **18**, 124043, https://doi.org/10.1088/1748-9326/ad0b22

154. Luqman, M., P.J. Rayner, **K.R. Gurney** (2023) On the impact of urbanization on CO_2 emissions, *Urban Sustainability,* 3, 6, https://10.1038/s42949-023-00084-2

2022

153. Huo, D., X Huang, X, Dou, X., Ciais, P., Li, Y., Deng, Z, Wang, Y., Cui, D. Benkhelifa, F., Sun, T., Zhu, B., Roest, G., Gurney, K.R., Ke, P., Guo, R., Lu, C., Lin, X., Lovell, A., Appleby, K., ,DeCola, P.L., Davis, S.J., Liu, Z. (2022) Carbon Monitor Cities near-real-time daily estimates of CO2 emissions from 1500 cities worldwide, Scientific Data, 9, 533, https://doi.org/10.1038/s41597-022-01657-z

152. Keller, E.., T. Hilton, A. Benson, S. Karalliyadda, S. Xie, **K.R. Gurney,** J. Turnbull. (2022) Mahuika-Auckland: A spatially and temporally resolved fossil fuel CO_2 emissions data product for Auckland, New Zealand, *Geosci. Data*, https://doi.org/10.1002/gdj3.181

151. 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) Source decomposition of eddy-covariance CO_2 flux measurements for evaluating a high-resolution urban CO_2 emissions inventory, *Environ. Res. Lett.*, 17(7) 074035, https://10.1088/1748-9326/ac7c29

150. 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 CO_2 Emissions from New York City Using Aircraft Measurements and Dispersion Modeling, *Elementa: Science of the Anthropocene* (2022) 10 (1): 00121, https://doi.org/10.1525/elementa.2021.00121. (Published June 28)

149. 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. Gately, L.R. Hutyra, **K.R. Gurney**, G.S. Roest, J. Liang, S. Gourdji, A. Karion, J.R. Whetstone, P.B. Shepson (2022) 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.

148. **Gurney, K.R.**, S. Kilkis, K. Seto, S. Lwasa, D. Moran, K. Riahi, M. Keller, P. Rayner, M. Luqman (2022) Greenhouse Gas Emissions from Global Cities Under SSP/RCP Scenarios, 1990 to 2100, *Global Environmental Change, 73*, 102478, https://doi.org/10.1016/j.gloenvcha.2022.102478

147. Moran, D. et al. (2021) Estimating CO_2 Emissions for 108,000 European Cities, *Earth System Science Data*, 14, 845–864, https://doi.org/10.5194/essd-14-845-2022.

2021

146. 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.

145. 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

144. **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

143. Yadav, V., S. Ghosh, K. Mueller, A. Karion, G. Roest, S. Gourdji, I. Lopez-Coto, **K.R. Gurney**, K. Verhlust, 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 CO_2 emissions in the Los Angeles and Washington DC/Baltimore metropolitan areas, *Geophys. Res. Lett*. https://doi.org/10.1029/2021GL092744

142. 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

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. 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, CO_2 and Methane Define a Decrease in Los Angeles CO_2 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 (N_2O) 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 CO_2 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 CO_2 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 $FFCO_2$ 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 CO_2 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 CO_2 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 CO_2 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 CO_2 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 CO_2 Emissions from Measurements of ^{14}C in Atmospheric CO_2, *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 CO_2 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. Hutyra, 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 CO_2 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. Heimburger, R. Harvey, J. Whetstone (2019), Synthesis of Urban CO_2 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 CO_2 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 CO_2 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. Loescher, 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 CO_2 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 CO_2 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 CO_2 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 CO_2 Emissions from Regions of Central and Southern California, *Science of the Total Environmen*t, 664, 381-391, https://doi.org/10.1016/j.scitotenv.2019.01.081.
112. Nangini, C, A. Peregon, 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 CO_2 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 CO_2, CH_4, 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 CO_2 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*.
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Over 300 public talks and poster presentations

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