

# 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 Arizona Univ, Aug 2018-present  
Professor, Honors Faculty, School of Life Sciences, Arizona State University, Aug 2017 – present  
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 - present  
Graduate Faculty, School of Sustainability, Arizona State University, Jan 2013 - present  
Senior Sustainability Scientist, Global Institute of Sustainability, Arizona State Univ, Aug 2010 – present  
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 – August 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, September 1992 – January 1997  
Research Associate, Atmospheric and Environmental Research, Inc., February 1992 – September 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 Laboratory, Nov 1986 - Sept 1987  
Student Assistant, Atmospheric Aerosol Research Group, Lawrence Berkeley National Lab, Feb 1985-Oct 1986

## HONORS AND AWARDS

Fulbright U.S. Scholar award, 2019-2019  
IPCC Lead Author, 6<sup>th</sup> Assessment Report  
Nominated for AGU's Macelwane Medal 2014  
Sigma Xi Young Investigator's Award 2010  
NSF CAREER Award 2009  
IPCC contributing author/reviewer 2<sup>nd</sup> through 5<sup>th</sup> Assessments (IPCC was organizational co-recipient of 2007 Nobel Peace Prize)  
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: 2013 - 2017  
Safety committee: 2010 – 2013, 2017 - present  
Diversity Committee, Purdue University, Aug 2005 – Aug 2010

## OTHER NATIONAL OR INTERNATIONAL PROFESSIONAL SERVICE

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

Workshop Organizer, NIST Inventory Workshop, National Institute for Standards and Technology, Bethesda, MD, 19-20, September

Expert Witness for state of Minnesota on utilization of the social cost of carbon: 2015

North American Carbon Program All-investigators Meeting steering committee member, 2015

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

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

Global Carbon Program Science Steering Committee: 2008 - 2013

NASA review panel member, Instrument Incubator Program 2001

Larimer County Environmental Advisory Board 2000-2002

NOAA Review Panel, Global Carbon Cycle Program 2005

NOAA Global Carbon Cycle Scientific Steering Committee, 2006 - present

NASA Review Panel, New Investigator Program, April 2006

*Carbon Management*, Editorial Board, 2009 - present

MCI Task Force Committee member, 2005 - present

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

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

United Nations Framework Convention on Climate Change attendee/advisor since 1996

#### 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

##### 2018

119. 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<sub>2</sub>, CH<sub>4</sub>, and CO flux estimates using ground and space-based remote sensing and a Lagrangian model, *submitted to atmos chem & phys*.
118. Ruti, P., O. Tarasova, J. Keller et al. (2018) Advancing Research for Seamless Environmental Prediction, *submitted to the Bulletin of the American Meteorological Society*.
117. **Gurney, K.R.**, R. Patarasuk, J. Liang, D. O'Keefe, P. Rao, Y Song (2018) The Hestia Fossil Fuel CO<sub>2</sub> Emissions Dataset for the Los Angeles Basin, *submitted to Earth System Science Data*
116. Feng, S., T. Lauvaux, K. Keller, K.J. Davis, P. Rayner, T. Oda, **K.R. Gurney** (2018) What can the atmospheric data tell us about the North American land sink?, *submitted to Nature Climate Change*.
115. Hutchins, M. **K.R. Gurney**, J.L. Liang (2018) Urban Onroad CO<sub>2</sub> emissions and population density: tipping points and saturation effects, *in preparation*
113. 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 (2018) A global dataset of city CO<sub>2</sub> emissions and emission drivers, *accepted to Scientific Data*.
113. **Gurney, K.R.**, Liang, J, D.O. O'Keefe, R. Patarasuk, M. Hutchins, J. Huang, P. Rao, and Y. Song (2018) Comparison of Global Downscaled Versus Bottom-Up Fossil Fuel CO<sub>2</sub> Emissions at the Urban Scale in Four US Urban Areas, *accepted to J. Geophys. Res.-Atmos*.
112. Nathan, B.J., T. Lauvaux, J. Turnbull, S.J. Richardson, N.L. Miles, **K.R. Gurney** (2018) Source Sector Attribution of CO<sub>2</sub> Emissions in an Urban Multi-species Bayesian Inversion System, *accepted to J.Geophys. Res*.
111. 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*.
110. 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) CO<sub>2</sub> transport, variability and budget over the Southern California Air Basin using high resolution WRF-VPRM model during CalNex 2010 Campaign, *in press at Journal of Applied Meteorology and Climatology*

109. 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) CO<sub>2</sub> 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.
108. 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<sub>x</sub> and CO Emissions from Washington, D.C.-Baltimore During the WINTER Campaign, *Journal of Geophysical Research*, doi: 10.1029/2018JD028539
107. 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 CO<sub>2</sub> Emission in California Using Atmospheric Observations and Models, *accepted to Environ. Res. Lett.*
106. 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 (2018), Investigating Sources of Variability and Error in Simulations of Carbon Dioxide in an Urban Region, *accepted to Atmospheric Environment*.
105. **Gurney, K.R.**, J. Liang, M. Hutchins, R. Patarasuk, J. Huang, D. O'Keeffe, P. Rao (2018) The scaling properties of US urban carbon dioxide emissions, *in preparation*.
104. 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, *in press at Env. Res. Lett.* <https://doi.org/10.1088/1748-9326/aad5ef>
103. Schimel, D., B. Moore, P. Sellers et al. (2018) Observing the Carbon-Climate System, *under review at the Bulletin of the American Meteorological Society*
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 CO<sub>2</sub> Signal, *Elem Sci Anth.* **6**(1):21. DOI: <http://doi.org/10.1525/elementa.131>
101. 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 (2018), Atmospheric Observation-based Estimation of Fossil Fuel CO<sub>2</sub> Emissions from Regions of Central and Southern California, *submitted to Science of the Total Environment*
100. 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 CO<sub>2</sub> fluxes in an urban environment: An observing system simulation experiment, *Elem. Sci. Anth.* **6**(1):17. DOI: <http://doi.org/10.1525/elementa.138>
99. 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**
98. Bowman, K., J. Liu, A. Bloom, N. Parazoo, M. Lee, Z. Jiang, D. Menemenlis, M. Gierach, G. Collatz, **K.R. Gurney** (2017) Global and Brazilian carbon response to El Nino Modoki 2011-2010, *Earth and Space Science*, **4**, 637-660.
97. Liu, J., K. Bowman, D. Schimel, N. Parazoo, Z. Jiang, M. Lee, A. Bloom, D. Wunch, **K.R. Gurney**, D. Menemenlis, M. Gierach, D. Crisp, A. Eldering (2017) [Contrasting carbon cycle responses of tropical continents to the 2015-16 El Nino](https://doi.org/10.1126/science.1254111), *Science*, **358**, 191.
96. Cambaliza, M.O.L., P.B. Shepson, J. Bogner, D.R. Caulton, B. Stirm, C. Sweeney, S.A. Montzka, K.R. Gurney, K. Spokas, O.E. Salmon, T.N. Lavoie, A. Hendricks, K. Mays, J. Turnbull, B.R. Miller, T. Lauvaux, K. Davis, A. Karion, B. Moser, C. Miller, C. Obermeyer, J. Whetstone, K. Prasad, N. Miles, S. Richardson (2017) Quantification and source apportionment of the methane emission flux from the city of Indianapolis, *Elem. Sci. Anth.*, <https://www.elementalscience.org/articles/10.12952/journal.elementa.000037/>
95. Deng, A., T. Lauvaux, K.J. Davis, B.J. Gaudet, N. Miles, S.J. Richardson, K. Wu, D.P. Sarmiento, R.M. Hardesty, T.A. Bonin, W.A. Brewer, **K.R. Gurney** (2017) Toward reduced transport errors in a high resolution urban CO<sub>2</sub> inversion system, *Elem. Sci. Anth.*, <https://www.elementalscience.org/articles/10.1525/elementa.133/>
94. Liang, J., **K.R. Gurney**, D. O'Keeffe, M. Hutchins, R. Patarasuk, J. Huang, Y. Song, P. Rao (2017) [Optimizing the spatial resolution for urban CO<sub>2</sub> flux studies using the Shannon entropy](https://doi.org/10.1029/2017JD026800), *Atmosphere*, **8**(90), doi:10.3390/atmos8050090
93. Oda, T., T. Lauvaux, D. Lu, J. Tang, P. Rao, N.L. Miles, S.J. Richardson, **K.R. Gurney**, K.J. Davis (2017) On the impact of the granularity of space-based urban CO<sub>2</sub> emissions in urban atmospheric inversions: A case study for Indianapolis, IN, *Elem. Sci. Anth.*, <https://www.elementalscience.org/articles/10.1525/elementa.146/>

92. Hedalius, J.K., S. Feng, C.M. Roehl, D. Wunch, P.W. Hillyard, J.R. Podolske, L.T. Iraci, R. Patarasuk, P.Rao, D. O’Keeffe, **K.R. Gurney**, R. Lauvaux, P. Wennberg (2017) Emissions and topography effects on column CO<sub>2</sub> (XCO<sub>2</sub>) variation, with a focus on the Southern California Megacity, *JGR-Atmospheres*, doi:10.1002/2017JD026455.
91. Davis, K.J., A. Deng, T. Lauvaux, N.L. Miles, S.J. Richardson, D. Sarmiento, **K.R. Gurney**, R.M. Hardesty, A. Brewer, P.B. Shepson, M.O. Cambaliza, C. Sweeney, J. Turnbull, J. Whetstone, A. Karion (2017) The Indianapolis Flux Experiment (INFLUX): A test-bed for developing anthropogenic greenhouse gas measurements, *Elem Sci Anth*, 5(21), <https://www.elementascience.org/article/10.1525/elementa.188/>
90. Miles, N., S.J. Richardson, T. Lauvaux, K.J. Davis, A. Deng, J. Turnbull, A. Karion, C. Sweeney, **K.R. Gurney**, R. Patarasuk, I. Razlivanov, M.O. Cambaliza, P.B. Shepson (2017) [Quantification of urban atmospheric boundary layer greenhouse gas dry mole fraction enhancements: Results from the Indianapolis Flux Experiment \(INFLUX\)](https://doi.org/10.1525/elementa.127), *Elem Sci Anth*. 2017;5:27. DOI: <http://doi.org/10.1525/elementa.127>
89. Heimburger, A.M.F., P.B. Shepson, B.H. Stirm, C. Susdorf, J. Turnbull, M.O.L. Cambaliza, O.E. Salmon, A.-E.M. Kerlo<sup>1</sup>, T.N. Lavoie, R.M. Harvey, K.J. Davis, T. Lauvaux, A. Karion, C. Sweeney, W.A. Brewer, R.M. Hardesty, **K.R. Gurney**, J. Whetstone (2017) Precision Assessment for the Aircraft Mass Balance Method for Measurement of Urban Greenhouse Gas Emission Rates, *Elem Sci Anth*, 5(26). <https://doi.org/10.1525/elementa.134>
88. **Gurney, K.R.**, J. Liang, R. Patarasuk, D. O’Keeffe, M. Hutchins, T. Lauvaux, J.C. Turnbull, P.B. Shepson (2017) Reconciling the differences between a bottom-up and inverse-estimated FFCO<sub>2</sub> emissions estimate in a large US urban area, *Elem Sci Anth*. 2017;5:44. DOI: <http://doi.org/10.1525/elementa.137>.
87. Huang, J. and **K.R. Gurney** (2017) Impact of climate change on U.S. building energy demand: Financial implications for consumers and energy suppliers, *Energy and Buildings*, 139, 747-754.
86. Rao, P., **K.R. Gurney**, R. Patarasuk, Y. Song, C.E. Miller, R. Duren, A. Eldering (2017) [Spatio-temporal variations in on-road CO<sub>2</sub> emissions in the Los Angeles Megacity](https://doi.org/10.1016/j.aimsgeos.2017.02.002), *AIMS Geosci*, 3(2), 239-267
85. Fischer, M.L., N. Parazoo, K. Brophy, X. Cui, S. Jeong, J. Liu, R. Keeling, T.E. Taylor, **K.R. Gurney**, T. Oda, H. Graven (2017) Simulating Estimation of California Fossil Fuel and Biosphere Carbon Dioxide Exchanges Combining In-situ Tower and Satellite Column Observations, *J. Geophys. Res.*, 10.1002/2016JD025617
- 2016**
84. **Gurney, K.R.**, J. Huang and K. Coltin (2016) [Bias present in US federal agency power plant CO<sub>2</sub> emissions data and implications for the US clean power plan](https://doi.org/10.1016/j.envreslett.2016.06.005), *Env. Res. Lett.*, 11, 064005, doi: 10.1088/1748-9326/11/6/064005.
83. Huang, J. and **K.R. Gurney** (2016) [Impacts of climate change on US building energy consumption: importance of building type, building technology, and space-time](https://doi.org/10.1016/j.energy.2016.07.025), *Energy*, 111, 137-153.
82. Huang, J. and **K.R. Gurney** (2016) [The hidden spatiotemporal vulnerability of US building energy demand to climate change](https://doi.org/10.1016/j.climchng.2016.07.001), *Climatic Change*, doi:10.1007/s10584-016-1681-6.
81. Lauvaux, T., N.L. Miles, A. Deng, S.J. Richardson, M.O. Cambaliza, K.J. Davis, B. Gaudet, **K.R. Gurney**, J. Huang, D. O’Keeffe, Y. Song, A. Karion, T. Oda, R. Patarasuk, D. Sarmiento, P. Shepson, C. Sweeney, J. Turnbull, and K. Wu (2016) [High resolution atmospheric inversion of urban CO<sub>2</sub> emissions during the dormant season of the Indianapolis Flux Experiment \(INFLUX\)](https://doi.org/10.1029/2015JD024473), *Journal of Geophysical Research*, 121, doi:10.1002/2015JD024473
80. Newman, S., X. Xu, **K.R. Gurney**, Y.-K. Hsu, K.-F. Li, X. Jiang, R. Keeling, S. Feng, D. O’Keeffe, R. Patarasuk, K.W. Wong, P. Rao, M.L. Fischer, and Y.L. Yung (2016) [Toward consistency between trends in bottom-up CO<sub>2</sub> emissions top-down atmospheric measurements in the Los Angeles megacity](https://doi.org/10.1029/2016GL070001), *Atmos. Chem. Phys.*, 16, 3843-3863.
79. Patarasuk, P., **K.R. Gurney**, D. O’Keeffe, Y. Song, J. Huang, P.Rao, M. Buchert, J. Lin, D. Mendoza, J.R. Ehleringer (2016) [Application of high-resolution fossil fuel CO<sub>2</sub> emissions quantification to urban climate policy in Salt Lake County, Utah USA](https://doi.org/10.1016/j.urbeco.2016.03.001), *Urban Ecosystems*, 19(3), 1013-1039. DOI 10.1007/s11252-016-0553-1
78. Tian, H., C. Lu, P. Ciais, A.M. Michalak, J.G. Canadell, E. Saikawa, D.N. Huntzinger, **K.R. Gurney**, S. Sitch, B. Zhang, J. Yang, P. Bousquet, L. Bruhwiler, G. Chen, E. Dlugokencky, P. Friedlingstein, J. Melillo, S. Pan, B. Poulter, R. Prinn, M. Saunio, C.R. Schwalm, S.C. Wofsy (2016) [Biogenic CH<sub>4</sub> and N<sub>2</sub>O emissions overwhelm land CO<sub>2</sub> sink, contributing to climate change](https://doi.org/10.1038/nature16946), *Nature*, doi: 10.1038/nature16946.
77. Feng, S., T. Lauvaux, S. Newman, P. Rao, R. Ahmadov, A. Deng, L. I. Díaz-Isaac, R. M. Duren, M. L. Fischer, C. Gerbig, **K.R. Gurney**, J. Huang, S. Jeong, Z. Li, C. E. Miller, D. O’Keeffe, R. Patarasuk, S. P. Sander, Y. Song, K. W. Wong, and Y. L. Yung (2016) [LA Megacity: a High-Resolution Land-Atmosphere Modelling System for Urban CO<sub>2</sub> Emissions](https://doi.org/10.1029/2016GL070001), *Atmospheric Chemistry and Physics*, 16,9010-9045.
76. Wong, K.W., T.J. Pongetti, T. Oda, P. Rao, **K.R. Gurney**, S. Newman, R. Duren, C.E. Miller, Y.L. Yung, and S.P. Sander (2016) Monthly trends of top-down methane emissions in Los Angeles Basin from 2011 to 2015, *Atmospheric Chemistry and Physics*, 16, 13121-13130

75. Zhang, X., **K.R. Gurney**, P.J. Rayner, D.F. Baker, and Y. Liu (2016) [Sensitivity of simulated CO<sub>2</sub> concentration to sub-annual variations in fossil fuel CO<sub>2</sub> emissions](#), *Atmospheric Chemistry and Physics*, **16**, 1907-1918

**2015**

74. **Gurney, K.R.**, R. Patarasuk, I. Razlivanov, Y. Song, D. O'Keeffe, J. Huang, Y. Zhou, P. Rao (2015) [Comment on "Analysis of high-resolution utility data for understanding energy use in urban systems"](#), *J. Ind. Ecol.*, DOI: 10.1111/jiec.12358

73. **Gurney, K.R.**, P. Romero-Lankao, K. Seto, C. Kennedy, N. Grimm, J., Ehleringer, P. Marcotullio, S. Pincetl, J.J. Feddema, S. Hughes, M.V. Chester, L. Hutya, J. Sperling, and D. Runfola (2015) [Climate change: Track urban emissions on a human scale](#), *Nature (Comment)*, **525**, 179-181 (10 September 2015), doi: 10.1038/525179a

72. Ogle, S., K. Davis, T. Lauvaux, A. Schuh, D. Cooley, T. O. West, L. S. Heath, N. Miles, S. Richardson, F. Jay Breidt, **K.R. Gurney**, and S. Denning (2015) An Approach for [Verifying Greenhouse Gas Emissions Inventories with Atmospheric CO<sub>2</sub> Measurement Data](#), *Env. Res. Lett.* **10**, doi:10.1088/1748-9326/10/3/034012

71. Turnbull, J., C. Sweeney, A. Karion, T. Newberger, P. Tans, S. Lehman, K.J. Davis, N.L. Miles, S.J. Richardson, T. Lauvaux, M.O. Cambaliza, P. Shepson, **K.R. Gurney**, Y. Song, I. Razlivanov, A. Zondervan (2015) [Towards quantification of fossil fuel CO<sub>2</sub> and trace gas emissions from an urban area: Results from the INFLUX experiment](#), *Journal of Geophysical Research, Atmos*, **120**. DOI: 10.1002/2014JD022555.

70. **Gurney, K.R.** (2015) [What is the role for carbon cycle science in the proposed EPA power plant rule?](#) *Earth Perspectives*, **2**:1, DOI: 10.1186/s40322-015-0028-1.

69. Cambaliza, O.M., P. B. Shepson, J. Bogner, D. R. Caulton, B. Stirm, C. Sweeney, S.A. Montzka, **K.R. Gurney**, K. Spokas, O.E. Salmon, T.N. Lavoie, A. Hendricks, K. Mays, J. Turnbull, B.R. Miller, T. Lauvaux, K. Davis, A. Karion, B. Moser, C. Miller, C. Obermeyer, J. Whetstone, K. Prasad, N. Miles, S. Richardson (2015) [Quantification and source apportionment of the methane emission flux from the city of Indianapolis](#), *Elementa: Science of the Anthropocene*, doi: 10.12952/journal.elementa.000037.

**2014**

68. L.M. Bruhwiler, E. Dlugokencky, K. Masarie, M. Ishizawa, A. Andrews, J. Miller, C. Sweeney, P. Tans, D Worthy, S. Houweling, M. Krol, P. Bergamaschi, C. Frankenberg, E.J. Dlugokencky, I. Morino, J. Notholt, V. Sherlock, D. Wunch, V. Beck, C. Gerbig, H. Chen, E.A. Kort, T. Röckmann, I. Aben, S.X. Fang, L.X. Zhou, P.P. Tans, P. Ciais, M. Steinbacher, L. Xu, T. Luan, D. Helmig, V. Petrenko, P. Martinerie, E. Witrant, A. Zunderweg, R. Holzinger, J. Hueber, C. Thompson, J.W.C. White, W. Sturges, A. Baker, T. Blunier, D. Etheridge, M. Rubino, C. Cressot, F. Chevallier, P. Bousquet, C. Crevoisier, A. Fortems-Cheiney, R. Parker, I. Pison, R.A. Scheepmaker, S.A. Montzka, P.B. Krummel, L.P. Steele, R.L. Langenfelds, B.W. LaFranchi, G. Pétron, J.B. Miller, S.J. Lehman, A.E. Andrews, B. Hall, B.R. Miller, W. Neff, P.C. Novelli, J.C. Turnbull, D.E. Wolfe, **K.R. Gurney**, T.P. Guilderson, M. Inoue, O. Uchino, Y. Miyamoto, Y. Yoshida, T. Yokota, T. Machida, Y. Sawa, H. Matsueda, S.C. Biraud, T. Tanaka, S. Kawakami, P.K. Patra, S. Basu, S. Guerlet, A. Butz, O. Hasekamp, P. Krummel, P. Steele, R. Langenfelds, M. Torn, S. Biraud, B. Stephens, A. Fraser, P.I. Palmer, L. Feng, H. Boesch, A. Cogan, P.J. Fraser, S. O'Doherty, R.G. Prinn (2014) CarbonTracker-CH<sub>4</sub>: an assimilation system for estimating emissions of atmospheric methane, *Atmos. Chem. Phys.* **14**, 3991-4012.

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Over 250 public talks and poster presentations

#### **POSTDOCTORAL SCHOLARS**

Jianming Huang (current)  
 Preeti Rao (2013-2016, Research Scientist, University of Michigan)  
 Xia Zhang (2009-2014, postdoctoral researcher at San Diego State University)  
 Igor Razlivanov (2011-2013, current position unknown)  
 Salvi Asefi-Najafabady (2012-2015, Faculty research associate at University of Virginia)  
 Risa Patarasuk (2013-2016, postdoctoral research, UC Irvine)  
 Yuyu Zhou (2008-2010, Assistant Professor at Iowa State University)

#### **GRADUATE STUDENTS**

Darragh O'Keeffe (2017, M.A., School of Sustainability)  
 Maya Hutchins (current, Ph.D. track, Geographical Science & Urban Planning)  
 Ryan Anderson (2015, M.A., Sustainability)  
 Scott Norby-Castillo (2016, M.A., Sustainability)  
 Jianhua Huang (2016 Ph.D., Life Sciences)  
 Yang Song (current, Ph.D. track, Life Sciences)  
 Vicky Liau (2013, M.S., co-advised with SGSUP)  
 Kevin Coltin (2013, M.S., co-advised with SMSS, current: Analyst, Adv. Analytics & Modeling, Deloitte)  
 Daniel Mendoza (2012, Ph.D., current: postdoc, Dept. Geology, Univ. of Utah)  
 Charlotte Castillo (2012, Ph.D., , Ross Fellowship, Fullbright scholar, current: Professor at Manila Observatory, Ateneo de Manila University)  
 Vandhana Chandrasekaran (2011, M.S., co-advised with Computer Sci., current: Assoc. Advisory at PwC)  
 Advait Godbole (2011, M.S., current: unknown)  
 Nalin Sahni (2010, M.S., co-advised with Civil Engineering, current: unknown)  
 Sarath Geethakumar (2010, M.S., co-advised with Comp. Sci., current: Senior Director, Mobile & Product Security, American Express)  
 Warren Eckels (2009, M.S., current: Adjunct Instructor at Ivy Tech Community College)

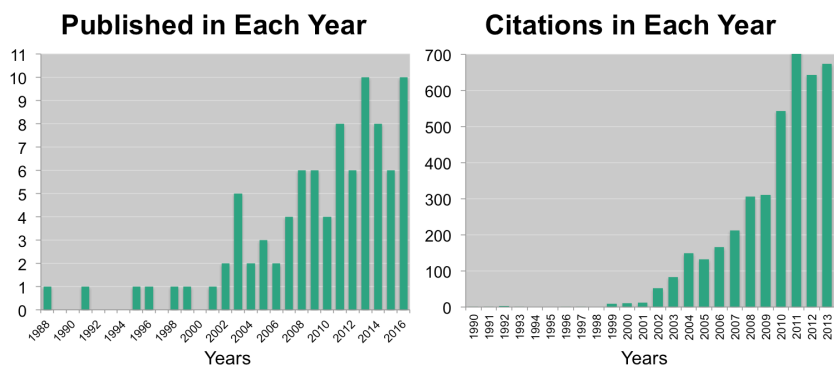
#### **COURSES TAUGHT**

Guest lecturer in numerous courses, School of Life Sciences, School of Sustainability  
 Collated all climate change related courses currently offered at ASU in order to centralize a climate change course offering - upcoming.  
 BIO 320: Fundamentals of Ecology (undergraduate)

BIO 182: General Biology II (undergraduate)  
 EAS 113/NRES 290/AGRY 290: Introduction to Environmental Sciences (undergraduate)  
 EAS 425: Carbon neutrality at Purdue (undergraduate/graduate)  
 EAS 591T: Principals of Terrestrial Ecosystem Ecology (graduate)  
 EAS 591A: Anthropogenic Climate Change (graduate)  
 Guest lecturer, Department of Atmospheric Science, Colorado State University, 1999 – 2005  
 Faculty lecturer and field instructor, Cruising for Conservation, Coastal Marine Education and Research Academy (CMERA), 2016  
 Instructor, SPATIAL Isotopes in Biogeochemistry & Ecology course, 2013-present

**COMMITTEE SERVICE**

Janet Reyna, Arizona State University, Ph.D. candidate, Advisor: Dr. Mikhail Chester  
 Amy Hawes, Dept of Atmospheric Sci, Colorado State University, Ph.D. candidate, Advisor: Dr. Dave Thompson  
 Kathy Corbin, Dept of Atmospheric Sci, Colorado State University, Ph.D. Candidate, Advisor: Dr. Scott Denning  
 Ryan Sriver, Dept of Earth and Atmospheric Sciences, Purdue University, Advisor: Dr. Matt Huber  
 Megan Walker, Dept of Earth and Atmospheric Sciences, Purdue University, Advisor: Dr. Noah Diffenbaugh  
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