

Eric A. Kort

Space Research Building, room 2553
2455 Hayward St.
Ann Arbor, MI 48109

eakort@umich.edu
Tel.: (734) 763-8414
<http://clasp-research.engin.umich.edu/faculty/kort/>

RESEARCH APPOINTMENTS

Associate Professor	2019-present
Assistant Professor	2013-2019
Climate and Space Sciences and Engineering, Applied Physics University of Michigan, Ann Arbor, MI	
W. M. Keck Institute for Space Studies Postdoctoral Fellow	2011-2013
Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA	

EDUCATION

Ph.D., Applied Physics , Harvard University, Cambridge, MA	2011
S.M., Applied Physics , Harvard University, Cambridge, MA	2005
B.A., Physics (with Honors), minor Mathematics, Pomona College, Claremont, CA	2004

HONORS AND AWARDS

NSF CAREER award	2017
NASA New Investigator Program (NIP) in Earth Science award	2014
Early Career Award, Gordon Conference for Atmospheric Chemistry, Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS)	2013
W. M. Keck Institute for Space Studies Postdoctoral Fellowship	2011-2013
National Center for Atmospheric Research Advanced Study Program Postdoctoral Fellowship (Declined)	2011
Outstanding Student Paper Award, Fall Meeting, AGU	2010
National Defense Science and Engineering Graduate (NDSEG) Fellowship	2007-2010
Edmunds Physics Prize, Pomona College	2004
Tileston Physics Prize, Pomona College	2003

AIRBORNE CAMPAIGNS

(* instrument PI and/or mission scientist, ** overall project PI)

**Flaring & Fossil Fuels: Uncovering Emissions and Losses (F³UEL), Gulf of Mexico/TX, Summer 2020; North Dakota/Alaska/California, Summer 2021.

**MAIZE: Measurement of Agriculture Investigating farm-Zone Emissions of N₂O, Iowa/Nebraska, Spring 2021

**AVIRIS-NG COVID: Directly observing changes in California Methane Emissions due to Covid-19, California, Summer 2020

** RAPID: Time-critical airborne measurements to quantify ozone impacts of emissions changes during the Covid-19 pandemic response in the U.S., Houston & Denver, Summer 2020

East-Coast Outflow Greenhouse Gas study, Covid response (ECO-Covid), East Coast US, Spring 2020

* East-Coast Outflow Greenhouse Gas study (ECO-GHG), East Coast US, Spring 2018

Offshore oil & gas emissions assessment, Gulf of Mexico, Winter 2018

- * Greenhouse Emissions in the Midwest (GEM), Minnesota, Summer 2017; GEM-2, Winter 2018; GEM-3, Spring 2018
- ** Fertilizer Emissions Airborne Study (FEAST), Colorado & Mississippi River Valley, Spring 2017
- * The O₂/N₂ Ratio and CO₂ Airborne Southern Ocean Study (ORCAS), Chile, Winter 2016
- ** Twin Otter Project Defining Oil/gas Well emissioNs (TOPDOWN), New Mexico** & Pennsylvania*, Spring 2015
- * TOPDOWN, North Dakota, Colorado, Spring 2014
- * Barnett methane emissions study (Environmental Defense Fund), Denton, TX, Fall 2013
- HIAPER Pole to Pole Observations (HIPPO-5), Pole to Pole, Summer-Fall 2011; HIPPO-4, Pole to Pole, Spring-Summer 2011
- California Nexus, Research at the Nexus of Air Quality and Climate Change (CALNEX), Ontario, CA, Spring 2010
- HIPPO-2, Pole to Pole, Fall 2009; HIPPO-3, Pole to Pole, Spring 2010;
- HIPPO-1, Pole to Pole, Winter 2009
- Stratosphere-Troposphere Analyses of Regional Transport (START08), Broomfield, CO, Spring 2008

TEACHING

- Earth System Evolution (AOSS 320, CLIMATE 320), University of Michigan, Fall 2014- 2016, 2018, 2021
- Atmospheric Chemistry (CLIMATE 479), University of Michigan, Winter 2021
- Earth System Interactions (AOSS 475), University of Michigan, Winter 2014-2019
- AOSS Seminar (AOSS 749), University of Michigan, Fall 2014 & Winter 2015

SERVICE ACTIVITIES

- Chair of Scientific Advisory Committee, Carbon Mapper, Inc. (2021-present)
- National Academies of Sciences, Engineering, and Medicine (NASEM) Committee member on the *Future Use of NASA Airborne Platforms to Advance Earth Science Priorities*, (2020-2021)
- Permian Methane Analysis Project, Environmental Defense Fund, Scientific Advisory Panel (2019-present)
- European Commission Joint Research Centre workshop participant and report co-author “Atmospheric monitoring and inverse modeling for verification of GHG inventories” (2017-2018)
- Japanese National Institute for Environmental Studies (NIES), workshop participant and report co-author “A guidebook on the use of satellite greenhouse gases observation data for verification of greenhouse gases emission inventories” (2017-2018)
- Co-lead for Workshop Towards Addressing Major Gaps in the Global Methane Budget, Linde Center, Caltech (2017)
- World Meteorological Organization Integrated Global GHG Information System (IG³IS) planning & implementation team (2016-2020)
- Co-chair of NACP breakout session on “Quantification and attribution of anthropogenic methane emissions in North America” (2015)
- Co-organizer Workshop on Measurements in Oil and Gas Production Regions, NOAA ESRL (2015)
- Public forum on Four Corners methane, Farmington, New Mexico (2015)
- JPL Carbon Cycle & Ecosystems Initiative steering committee member (2013)
- American Geophysical Union member

University of Michigan service:

- Co-creator/director of Climate Change Solutions graduate certificate program (2020-present)
- Michigan Engineering ONRAMP Faculty Advisory Board (2021-)

College of Engineering Energy Institute visioning committee (2021)
 Climate and Space Sciences and Engineering graduate admissions chair (2021-); graduate committee (2020-); curriculum committee (2020-); research excellence committee (2019-2020); mentoring committee (2018-2020); executive committee (2016-2020); graduate admission committee (2015-2019)
 President's Commission on Carbon Neutrality: Carbon Accounting Sub Group (2019)
 Faculty transition team for new School of Sustainability at University of Michigan (2016-2017)
 Michigan Geophysical Union judge (2014, 2015)
 University of Michigan College of Engineering Graduate Symposium conference judge (2015)
 Atmospheric, Oceanic and Space Sciences Seminar co-organizer (2014-2015)
 President Schlissel's committee on Greenhouse Gas Reduction, University of Michigan (2014-2015)
 UM Integrated Assessment on Hydraulic Fracturing in Michigan (consulting member; 2014-2015)
 Qualifying and prospectus exams: Anna Savage (2014, Applied Physics), Ben Isaacoff (2014, Applied Physics), Jamie MacLennan (2014, Applied Physics), Rebecca Craig (2014, Chemistry), Liz Ultee (2015, AOSS), Judit Szente (2015, AOSS), Zach Butterfield (2015, CLaSP), Rahul Gogna (2016, Applied Physics), Samantha Basile (2016/2017, CLaSP), Anthony Torres (2016/2017, CLaSP), Shane Coffing (2017, Applied Physics), Dien Wu (2017, U. of Utah), Brian Swiger (2018, CLaSP), Yifan Guan (2020, CLaSP), Yingxiao Zhang (2021, CLaSP)
 PhD committees: Chunpeng Wang (2014, AOSS), Anna Savage (2017, Applied Physics), Rebecca Craig (2018, Chemistry), Matthew Wozniak (2019, CLaSP), Dien Wu (2020, Utah), Zachary Butterfield (2020, CLaSP)
 PhD committees chaired/co-chaired: John Ware (2018, Physics), Alexander (Sandro) Gvakharia (2019, Applied Physics)

Review tasks:

Peer reviewer for *Nature*, *PNAS*, *Nature Geoscience*, *Geophysical Research Letters*, *Nature Scientific Reports*, *Atmospheric Chemistry and Physics*, *Journal of Geophysical Research*, *Global Biogeochemical Cycles*, *Environmental Pollution*, *Atmospheric Measurement Techniques*, and *Environmental Science and Technology*
 Proposal reviewer (*NSF*, *NERC*, *NSERC*, *Belmont Forum*, *Netherlands Space Office*, *Swedish National Space Board*) & panelist for *NASA* (2013, 2014 [2], 2016, 2019)

INVITED SEMINARS

Andrews University, Chemistry & Biochemistry (2019); Max Planck Institute for Biogeochemistry, Jena, Germany (2017); University of California- Berkeley, Berkeley Atmospheric Sciences Center Seminar (2017); University of Colorado- Boulder, Atmospheric and Oceanic Sciences (2017); California Institute of Technology, Environmental Science and Engineering (2017); University of Washington, Atmospheric Science (2017); University of Toronto, Center for Global Change Science Distinguished Lecturer Series (2017); Dartmouth College (2017); NASA GMAO, Goddard Space Flight Center (2015); NOAA ESRL Chemical Science Division (2014); University of Michigan, Atmospheric, Oceanic and Space Sciences (2014); UiT The Arctic University of Norway, (CAGE) Centre for Arctic Gas Hydrate, Environment, and Climate (2013); Boston University, Terrestrial Biogeochemistry (2013); Massachusetts Institute of Technology, Civil & Environmental Engineering (2013); University of Michigan, Atmospheric, Oceanic and Space Sciences (2013); Jet Propulsion Laboratory (2013); Pomona College, Physics (2012); UC Irvine, Earth System Science (2012); UCLA, Atmospheric and Oceanic Sciences (2012); Caltech, ESE & Society discussion group (2012); Caltech, Yuk Lunch seminar (2011); Jet Propulsion Laboratory (2011); JAMSTEC, Yokohama, Japan (2010)

PUBLICATIONS

As of Nov. 2021: Google Scholar h-index = 45, total citations = 7941

(indicates Kort group member)

86. Plant G, Kort EA, Murray LT, Maasackers JD, Aben I, *Evaluating urban methane emissions from space using TROPOMI methane and carbon monoxide observations*, Remote Sensing of Environment, 268, 112756, <https://doi.org/10.1016/j.rse.2021.112756>, 2022.
85. Laughner JL, Neu JL, Schimel D, Wennberg PO, Barsanti K, Bowman KW, Chatterjee A, Croes BE, Fitzmaurice HL, Henze DK, Kim J, Kort EA, Liu Z, Miyazaki K, Turner AJ, Anenberg S, Avise J, Cao H, Crisp D, de Gouw J, Eldering A, Fyfe JC, Goldberg DL, Gurney KR, Hasheminassab S, Hopkins F, Ivey CE, Jones DBA, Lovenduski NS, Martin RV, McKinley GA, Ott L, Poulter B, Ru M, Sander SP, Swart N, Yung YL, Zeng ZC, KISS team, *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>, 2021.
84. Hintsä E, Moore FL, Hurst DF, Dutton GS, Hall BD, Nance JD, Miller BR, Montzka SA, Wolton LP, McClure-Begley A, Elkins JW, Hall EG, Jordan AF, Rollins AW, Thornberry TD, Watts LA, Thompson CR, Peischl J, Bourgeois I, Ryerson TB, Daube BC, Pittman JV, Wofsy SC, Kort EA, Diskin GS, Bui TP, *UAS Chromatograph for Atmospheric Trace Species (UCATS) – a versatile instrument for trace gas measurements on airborne platforms*, Atmos. Meas. Tech., 14, 6795-6819, <https://doi.org/10.5194/amt-14-6795-2021>, 2021.
83. Gonzalez A, Millet DB, Yu X, Wells KC, Griffis TJ, Baier BC, Campbell PC, Choi Y, DiGangi JP, Gvakharia A, Halliday H, Kort EA, McKain K, Nowak J, Plant G, *Fossil Versus Nonfossil CO Sources in the US: New Airborne Constraints from ACT-America and GEM*, Geophysical Research Letters, <https://doi.org/10.1029/2021GL093361>, 2021.
82. Lyon DR, Hmiel B, Gautam R, Omara M, Roberts K, Barkley Z, Davis KJ, Miles N, Monteiro V, Richardson S, Conley S, Smith M, Jacob DJ, Shen L, Varon DJ, Deng A, Rudelis X, Sharma N, Story K, Brandt A, Kang M, Kort EA, Marchese A, Hamburg SP, *Concurrent variation in oil and gas methane emissions and oil price during the COVID-19 pandemic*, Atmos. Chem. Phys., <https://doi.org/10.5194/acp-21-6605-2021>, 2021.
81. Wu D, Lin JC, Duarte HF, Yadav V, Parazoo NC, Oda T, Kort EA, *A model for urban biogenic CO₂ Fluxes: Solar-Induced Fluorescence for Modeling Urban biogenic Fluxes (SMUrF v1)*, Geosci. Model Dev., <https://doi.org/10.5194/gmd-14-3633-2021>, 2021.
80. Zavala-Araiza D, Omara M, Gautam R, Smith ML, Pandey S, Aben I, Almanza-Veloz V, Conley S, Houweling S, Kort EA, Maasackers JD, Molina LT, Pusuluri A, Scarpelli T, Schwietzke S, Shen L, Zavala M, Hamburg SP, *A tale of two regions: methane emissions from oil and gas production in offshore/onshore Mexico*, Environ. Res. Lett. 16 024019, <https://doi.org/10.1088/1748-9326/abceeb>, 2021.
79. Yu X, Millet DB, Wells KC, Henze DK, Cao H, Griffis TJ, Kort EA, Plant G, Deventer MJ, Kolka RK, Roman DT, Davis KJ, Desai A, Baier BC, McKain K, Czarnetzki AC, Bloom AA, *Aircraft-based inversions quantify the importance of wetlands and livestock for Upper Midwest methane emissions*, Atmos. Chem. Phys., <https://doi.org/10.5194/acp-21-951-2021>, 2021.
78. Huber DE, Steiner AL, Kort EA, *Daily Cropland Soil NO_x Emissions Identified by TROPOMI and SMAP*, Geophysical Research Letters, doi: 10.1029/2020GL089949, 2020.

77. Gvakharia A, Kort EA, Smith ML, Conley S, *Evaluating Cropland N₂O Emissions and Fertilizer Plant Greenhouse Gas Emissions With Airborne Observations*, *J. Geophys. Res. Atmospheres*, doi: 10.1029/2020JD032815, 2020.
76. Gorchov Negron AM, Kort EA, Conley SA, Smith ML, *Airborne Assessment of Methane Emissions from Offshore Platforms in the U.S. Gulf of Mexico*, *Environ. Sci. Technol.*, doi: 10.1021/acs.est.0c00179, 2020.
75. Yang EG, Kort EA, Wu D, Lin JC, Oda T, Ye X, Lauvaux T, *Using space-based observations and Lagrangian modeling to evaluate urban carbon dioxide emissions in the Middle East*, *J. Geophys. Res. Atmospheres*, doi: 10.1029/2019JD031922, 2020.
74. Ye X, Lauvaux T, Kort EA, Oda T, Feng S, Lin JC, Yang EG, Wu D, *Constraining fossil fuel CO₂ emissions from urban area using OCO-2 observations of total column CO₂*, *J. Geophys. Res. Atmospheres*, doi: 10.1029/2019JD030528, 2020.
73. Wu D, Lin JC, Oda T, Kort EA, *Space-based quantification of per capita CO₂ emissions from cities*, *Environ. Res. Lett.* 15 035004, <https://doi.org/10.1088/1748-9326/ab68eb>, 2020.
72. Yu X, Millet DB, Wells KC, Griffis TJ, Chen X, Baker JM, Conley SA, Smith ML, Gvakharia A, Kort EA, Plant G, Wood JD, *Top-down constraints on methane point source emissions from animal agriculture and waste based on new airborne measurements in the US Upper Midwest*, *J. Geophys. Res. Biogeosciences*, doi: 10.1029/2019JG005429, 2020.
71. Morgan EJ, Stephens BB, Long MC, Keeling RF, Bent JD, McKain K, Sweeney C, Hoecker-Martinez MS, Kort EA, *Summertime Atmospheric Boundary Layer Gradients of O₂ and CO₂ over the Southern Ocean*, *J. Geophys. Res. Atmospheres*, 124, doi: 10.1029/2019JD031479, 2019.
70. Huang Y, Kort EA, Karion A, Ware J, Mueller K, Gourdji S, *Seasonally resolved excess urban methane emissions from the Baltimore/Washington, DC metropolitan region*, *Environ. Sci. Technol.*, doi: 10.1021/acs.est.9b02782, 2019.
69. Asher E, Hornbrook RS, Stephens BB, Kinnison D, Morgan E, Keeling R, Atlas E, Schauffler S, Tilmes S, Kort EA, Hoecker-Martinez M, Long M, Lamarque JF, Saiz-Lopez A, McKain K, Sweeney C, Hills AJ, Apel EC, *Novel approaches to improve estimates of short-lived halocarbon emissions during summer from the Southern Ocean using airborne observations*, *Atmos. Chem. Phys.*, 19, 14071–14090, <https://doi.org/10.5194/acp-19-14071-2019>, 2019.
68. Cui YY, Vijayan A, Falk M, Hsu YK, Yin D, Chen XM, Zhao Z, Avise J, Chen Y, Verhulst K, Duren R, Yadav V, Miller C, Weiss R, Keeling R, Kim J, Iriaci LT, Tanaka T, Johnson MS, Kort EA, Bianco L, Fischer ML, Stroud K, Herner J, Croes B, *A multi-platform inversion estimation of statewide and regional methane emissions in California during 2014-2016*, *Environ. Sci. Technol.*, doi: 10.1021/acs.est.9b01769, 2019.
67. Plant G, Kort EA, Floerchinger C, Gvakharia A, Vimont I, Sweeney C, *Large fugitive methane emissions from urban centers along the US East Coast*, *Geophysical Research Letters*, doi:10.1029/2019GL082635, 2019.
66. Ware J, Kort EA, Duren R, Verhulst K, Yadav V, *Detecting Urban Emissions Changes and Events with a Near Real Time Capable Inversion System*, *J. Geophys. Res. Atmospheres*, 124, 5117-5130. doi:10.1029/2018JD029224, 2019.
65. Turner A*, Frankenberg C*, Kort EA*, *Interpreting contemporary trends in atmospheric methane, PNAS Perspective*, 201814297, doi:10.1073/pnas.1814297116, 2019. *authors contributed equally.

64. Gaubert B, Stephens BB, Basu S, Chevallier F, Deng F, Kort EA, Patra PK, Peters W, Rodenbeck C, Saeki T, Schimel D, Van der Laan-luijkx I, Wofsy S, Yin Y, *Global atmospheric CO₂ inverse models converging on neutral tropical land exchange but diverging on fossil fuel and atmospheric growth rate*, Biogeosciences, 16, 117-134, <https://doi.org/10.5194/bg-16-117-2019>, 2019.
63. Gvakharia A, Kort EA, Smith M, Conley S, *Testing and evaluation of a new airborne system for continuous N₂O, CO₂, CO, and H₂O measurements: the Frequent Calibration High-performance Airborne Observation System (FCHAOS)*, Atmos. Meas. Tech. 11, 6059-6074, <https://doi.org/10.5194/amt-11-6059-2018>, 2018.
62. Wu D, Lin JC, Oda T, Ye X, Lauvaux T, Yang EG, Kort EA, *A Lagrangian Approach Towards Extracting Signals of Urban CO₂ Emissions from Satellite Observations of Atmospheric Column CO₂ (XCO₂): X-Stochastic Time-Inverted Lagrangian Transport model ("X-STILT v1.1")*, Geosci. Model Dev., 11, 4843-4871, <https://doi.org/10.5194/gmd-11-4843-2018>, 2018.
61. Zeng ZC, Natraj V, Xu F, Pongetti TJ, Shia RL, Kort EA, Toon GC, Sander SP, Yung YL, *Constraining Aerosol Vertical Profile in the Boundary Layer Using Hyperspectral Measurements of Oxygen Absorption*, Geophysical Research Letters, 45, 10,772–10,780, <https://doi.org/10.1029/2018GL079286>, 2018.
60. Alvarez RA, Zavala-Araiza D, Lyon DR, Allen DT, Barkley ZR, Brandt AR, Davis KJ, Herndon SC, Jacob DJ, Karion A, Kort EA, Lamb BK, Lauvaux T, Maasackers JD, Marchese AJ, Omara M, Pacala SW, Peischl J, Robinson AL, Shepson PB, Sweeney C, Townsend-Small A, Wofsy SC, Hamburg SP, *Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain*, Science, 10.1126/science.aar7204, 2018.
59. Gourdji SM, Yadav V, Karion A, Mueller KL, Conley S, Ryerson T, Nehr Korn T, Kort EA, *The Aliso Canyon natural gas leak as a natural tracer experiment: reducing errors in aircraft atmospheric inversion estimates of point-source emissions*, Environmental Research Letters, 13, 045003, 2018.
58. Stephens BB, Long MC, Keeling RF, Kort EA, Sweeney C, Apel EC, Atlas EL, Beaton S, Bent JD, Blake NJ, Bresch JF, Casey J, Daube BC, Diao M, Diaz E, Dierssen H, Donets V, Gao BC, Gierach M, Green R, Haag J, Hayman M, Hills AJ, Hoecker-Martinez MS, Honomichl SB, Hornbrook RS, Jensen JB, Li RR, McCubbin I, McKain K, Morgan EJ, Nolte S, Powers JG, Rainwater B, Randolph K, Reeves M, Schauffler SM, Smith M, Smith K, Stith J, Stossmeister G, Toohey DW, Watt AS, *The O₂/N₂ Ratio and CO₂ Airborne Southern Ocean (ORCAS) Study*, Bull. Amer. Meteor. Soc. doi:10.1175/BAMS-D-16-0206.1, 2018.
57. Barkley ZR, Lauvaux T, Davis KJ, Deng A, Miles NL, Richardson SJ, Cao Y, Sweeney C, Karion A, Smith M, Kort EA, Schwietzke S, Murphy T, Cervone G, Martins D, Maasackers JD, *Quantifying methane emissions from natural gas production in northeastern Pennsylvania*, Atmos. Chem. Phys., 17, 13941-13966, <https://doi.org/10.5194/acp-17-13941-2017>, 2017.
56. Conley S, Faloona I, Mehrotra S, Suard M, Lenschow DH, Sweeney C, Herndon S, Schwietzke S, Petron G, Pifer J, Kort EA, Schnell R, *Application of Gauss' Theorem to quantify localized surface emissions from airborne measurements of wind and trace gases*, Atmos. Meas. Tech., 10, 3345-3358, <https://doi.org/10.5194/amt-10-3345-2017>, 2017.
55. Thorpe AK, Frankenberg C, Thompson DR, Duren RM, Aubrey AD, Bue BB, Green RO, Gerilowski K, Krings T, Borchard J, Kort EA, Sweeney C, Conley S, Roberts DA, Dennison PE, *Airborne DOAS retrievals of methane, carbon dioxide, and water vapor concentrations at high spatial resolution: application to AVIRIS-NG*, Atmos. Meas. Tech., 10, 3833-3850, <https://doi.org/10.5194/amt-10-3833-2017>, 2017.

54. Smith ML, Gvakharia A, Kort EA, Sweeney C, Conley S, Faloon I, Newberger T, Schnell R, Schwietzke S, Wolter S, *Airborne quantification of methane emissions over the Four Corners region*, Environ. Sci. Technol., doi: 10.1021/acs.est.6b06107, 2017.
53. Gvakharia A, Kort EA, Brandt AR, Peischl J, Ryerson TB, Schwarz JP, Smith ML, Sweeney C, *Methane, black carbon, and ethane emissions from natural gas flares in the Bakken Shale, ND*, Environ. Sci. Technol., doi: 10.1021/acs.est.6b05183, 2017.
52. Cui YY, Brioude J, Angevine WM, Peischl J, McKeen SA, Kim SW, Neuman JA, Henze D, Bousseres N, Fischer ML, Jeong S, Michelsen HA, Bambha RP, Liu Z, Santoni GW, Daube BC, Kort EA, Frost GF, Ryerson TB, Wofsy SC, Trainer M, *Top-down estimate of methane emissions in California using a mesoscale inverse modeling technique: The San Joaquin Valley*, J. Geophys. Res. Atmos., 122, doi:10.1002/2016JD026398, 2017.
51. Frankenberg C, Thorpe A, Thompson DR, Hulley G, Kort EA, Vance N, Borchardt J, Krings T, Gerilowski K, Sweeney C, Conley S, Bue B, Aubrey A, Hook S, Green R, *Airborne methane remote measurements reveal heavy-tail flux distribution in Four Corners region*, Proceedings of the National Academy of Sciences, doi: 10.1073/pnas.1605617113, 2016.
50. Ware J, Kort EA, DeCola P, Duren R, *Aerosol Lidar Observations of Atmospheric Mixing in Los Angeles: Climatology and Implications for Greenhouse Gas Observations*, J. Geophys. Res., doi: 10.1002/2016JD024953, 2016.
49. Inoue M, Morino I, Uchino O, Nakatsuru T, Yoshida Y, Yokota T, Wunch D, Wennberg PO, Roehl CM, Griffith DWT, Velasco VA, Deutscher NM, Warneke T, Notholt J, Robinson J, Sherlock V, Hase F, Blumenstock T, Rettinger M, Sussmann R, Kyrö E, Kivi R, Shiomi K, Kawakami S, De Mazière M, Arnold SG, Feist DG, Barrow EA, Barney J, Dubey M, Schneider M, Iraci L, Podolske JR, Hillyard P, Machida T, Sawa Y, Tsuboi K, Matsueda H, Sweeney C, Tans PP, Andrews AE, Biraud SC, Fukuyama Y, Pittman JV, Kort EA, and Tanaka T, *Bias corrections of GOSAT SWIR XCO₂ and XCH₄ with TCCON data and their evaluation using aircraft measurement data*, Atmos. Meas. Tech., 9, 3491-3512, doi:10.5194/amt-9-3491-2016, 2016.
48. Kort EA, Smith ML, Murray LT, Gvakharia A, Brandt A, Peischl J, Ryerson TB, Sweeney C, Travis K, *Fugitive emissions from the Bakken shale illustrate role of shale production in global ethane shift*, Geophysical Research Letters, 43, doi:10.1002/2016GL068703, 2016.
47. Peischl J, Karion A, Sweeney C, Kort EA, Smith ML, Brandt AR, Yeskoo T, Aikin KC, Conley SA, Gvakharia A, Trainer M, Wolter S, Ryerson TB, *Quantifying atmospheric methane emissions from oil and natural gas production in the Bakken shale region of North Dakota*, J. Geophys. Res., doi: 10.1002/2015JD024631, 2016.
46. Frankenberg C, Kulawik SS, Wofsy S, Chevallier F, Daube B, Kort EA, O'Dell C, Olsen ET, Osterman G, *Using airborne HIAPER Pole-to-Pole Observations (HIPPO) to evaluate model and remote sensing estimates of atmospheric carbon dioxide*, Atmos. Chem. Phys., 16, 7867-7878, doi:10.5194/acp-16-7867-2016, 2016.
45. Hopkins FM, Kort EA, Bush SE, Ehleringer JR, Lai CT, Blake DR, Randerson JT, *Spatial patterns and source attribution of urban methane in the Los Angeles Basin*, J. Geophys. Res., 121, doi: 10.1002/2015JD024429, 2016.
44. Patra PK, Saeki T, Dlugokencky EJ, Ishijima K, Umezawa T, Ito A, Aoki S, Morimoto S, Kort EA, Crotwell A, Ravi Kumar K, Nakazawa T, *Regional methane emission estimation based on observed atmospheric concentrations (2002-2012)*, Journal of the Meteorological Society of Japan, 2016, 94 (1), pp. 91-113, doi: 10.2151/jmsj.2016-006, 2016.

43. Zavala-Araiza D, Lyon DR, Alvarez RA, Davis KJ, Harriss R, Herndon SC, Karion A, Kort EA, Lamb BK, Lan X, Marchese AJ, Pacala SW, Robinson AL, Shepson PB, Sweeney C, Talbot R, Townsend-Small A, Yacovitch TI, Zimmerle D, Hamburg SP, *Reconciling divergent estimates of oil and gas methane emissions*, Proceedings of the National Academy of Sciences, doi:10.1073/pnas.1522126112, 2015.
42. Schwarz JP, Holloway JS, Katich JM, McKeen S, Kort EA, Smith ML, Ryerson TB, Sweeney C, Peischl J, *Black Carbon Emissions from the Bakken Oil and Gas Development Region*, Environ. Sci. Technol. Lett., doi: 10.1021/acs.estlett.5b00225, 2015.
41. Smith ML, Kort EA, Karion A, Sweeney C, Herndon SC, Yacovitch TI, *Airborne ethane observations in the Barnett Shale: Quantification of ethane flux and attribution of methane emissions*, Environ. Sci. Technol., doi: 10.1021/acs.est.5b00219, 2015.
40. Karion A, Sweeney, C, Kort EA, Shepson PB, Brewer A, Cambaliza M, Conley S, Davis K, Deng A, Hardesty M, Herndon SC, Lauvaux T, Lavoie T, Lyon D, Newberger T, Petron G, Rella C, Smith M, Wolter S, Yacovitch TI, Tans P, *Aircraft-based estimate of total methane emissions from the Barnett Shale region*, Environ. Sci. Technol., doi: 10.1021/acs.est.5b00217, 2015.
39. Wells KC, Millet DB, Bousserez N, Henze DK, Chaliyakunnel S, Griffis TJ, Luan Y, Dlugokencky EJ, Prinn RG, O'Doherty S, Weiss RF, Dutton GS, Elkins JW, Krummel PB, Langenfelds R, Steele LP, Kort EA, Wofsy SC, Umezawa T, *Simulations of atmospheric N₂O with GEOS-Chem and its adjoint: evaluation of observational constraints*, Geosci. Model Dev., 8, 3179-3198, doi: 10.5194/gmd-8-3179-2015, 2015.
38. Deng F, Jones DBA, Walker TW, Keller M, Bowman KW, Henze DK, Nassar R, Kort EA, Wofsy SC, Walker KA, Bourassa AE, Degenstein DA, *Sensitivity analysis of the potential impact of discrepancies in stratosphere-troposphere exchange on inferred sources and sinks of CO₂*, Atmos. Chem. Phys., 15, 11773-11788, doi: 10.5194/acp-15-11773-2015, 2015.
37. Cui YY, Brioude J, McKeen SA, Angevine WM, Kim SW, Frost GJ, Ahmadov R, Peischl J, Bousserez N, Liu Z, Ryerson TB, Wofsy SC, Santoni GW, Kort EA, Fischer ML, Trainer M, *Top-down estimates of methane emissions in California using a mesoscale inverse modeling technique: 1. The South Coast Air Basin*, J. Geophys. Res., 120, doi: 10.1002/2014JD023002, 2015.
36. Wong KW, Fu D, Pongetti TJ, Newman S, Kort EA, Duren R, Hsu Y-K, Miller CE, Yung YL, Sander SP, *Mapping CH₄: CO₂ ratios in Los Angeles with CLARS-FTS from Mount Wilson, California*, Atmos. Chem. Phys., 15, 241-252, doi:10.5194/acp-15-241-2015, 2015.
35. Alexe, M, Bergamaschi P, Segers A, Detmers R, Butz A, Hasekamp O, Guerlet S, Parker R, Boesch H, Frankenberg C, Scheepmaker RA, Dlugokencky E, Sweeney C, Wofsy SC, Kort EA, *Inverse modeling of CH₄ emissions for 2010-2011 using different satellite retrieval products from GOSAT and SCIAMACHY*, Atmos. Chem. Phys., 15, 113-133, doi:10.5194/acp-15-113-2015, 2015.
34. Gray JM, Frohking S, Kort EA, Ray DK, Kucharik CJ, Ramankutty N, Friedl MA, *Direct human influence on atmospheric CO₂ seasonality from increased cropland productivity*, Nature, 515 (7527), 398-401, doi:10.1038/nature13957, 2014.
33. Kort EA, Frankenberg C, Costigan KR, Lindemaier R, Dubey MK, Wunch D, *Four Corners: the largest US methane anomaly viewed from space*, Geophysical Research Letters, 41 (19), 6898-6903, doi:10.1002/2014GL061503, 2014.
32. Inoue M, Morino I, Uchino O, Miyamoto Y, Saeki T, Yoshida Y, Yokota T, Sweeney C, Tans PP, Biraud SC, Machida T, Pittman JV, Kort EA, Tanaka T, Kawakami S, Sawa Y, Tsuboi K, Matsueda H, *Validation of XCH₄ derived from SWIR spectra of GOSAT TANSO-FTS with aircraft measurement data*, Atmos. Meas. Tech., 7, 2987-3005, doi:10.5194/amt-7-2987-2014, 2014.

31. Hutyra LR, R Duren, KR Gurney, N Grimm, EA Kort, E Larson, G Shrestha, *Urbanization and the carbon cycle: Current capabilities and research outlook from the natural sciences perspective*, *Earth's Future*, doi: 10.1002/2014EF000255, 2014.
30. Yacovitch TI, Herndon SC, Roscioli JR, Floerchinger C, McGovern RM, Agnese M, Petron G, Kofler J, Sweeney C, Karion A, Conley SA, Kort EA, Nahle L, Fischer M, Hildebrandt L, Koeth J, McManus BJ, Nelson DD, Zahniser M, Kolb CE, *Demonstration of an Ethane Spectrometer for Methane Source Identification*, *Environ. Sci. Tech.*, 48 (14), pp 8028-8034, doi: 10.1021/es501475q, 2014.
29. Brandt AR, Heath GA, Kort EA, O'Sullivan F, Petron G, Jordaan SM, Tans P, Wilcox J, Gopstein AM, Arent D, Wofsy S, Brown NJ, Bradley R, Stucky GD, Eardley D, Harriss R, *Methane Leaks from North American Natural Gas Systems*, *Science*, 343(6172), 733-735, 2014.
28. Miller SM, Worthy DEJ, Michalak AM, Wofsy SC, Kort EA, Havice TC, Andrews AE, Dlugokencky EJ, Kaplan JO, Levi PJ, Tian H, Zhang B, *Observational constraints on the distribution, seasonality, and environmental predictors of North American boreal methane emissions*, *Global Biogeochemical Cycles*, doi: 10.1002/2013GB004580, 2014.
27. Houweling S, Krol M, Bergamaschi P, Frankenberg C, Dlugokencky EJ, Morino I, Notholt J, Sherlock V, Wunch D, Beck V, Gerbig C, Chen H, Kort EA, Rockmann T, Aben I, *A multi-year methane inversion using SCIAMACHY, accounting for systematic errors using TCCON measurements*, *Atmos. Chem. Phys.*, 14, 3991-4012, doi:10.5194/acp-14-3991-2014, 2014.
26. Deng F, Jones DBA, Henze DK, Bousserez N, Bowman KW, Fisher JB, Nassar R, O'Dell C, Wunch D, Wennberg PO, Kort EA, Wofsy SC, Blumenstock T, Deutscher NM, Griffith D, Hase F, Heikkinen P, Sherlock V, Strong K, Sussmann R, Warneke T, *Inferring regional sources and sinks of atmospheric CO₂ from GOSAT XCO₂ data*, *Atmos. Chem. Phys.*, 14, 3703-3727, doi:10.5194/acp-14-3703-2014, 2014.
25. Santoni GW, Daube BC, Kort EA, Jimenez R, Park S, Pittman JV, Gottlieb E, Xiang B, Zahniser MS, Nelson DD, McManus JB, Peischl J, Ryerson TB, Holloway JS, Andrews AE, Sweeney C, Hall BD, Hintsä E, Moore FL, Elkins JW, Stephens BB, Wofsy SC, *Evaluation of the Airborne Quantum Cascade Laser Spectrometer (QCLS) measurements of the carbon and greenhouse gas suite— CO₂, CH₄, N₂O, and CO – during the CalNex and HIPPO campaigns*, *Atmos. Meas. Tech.*, 7, 1509-1526, doi:10.5194/amt-7-1509-2014, 2014.
24. Miller SM, Wofsy SC, Michalak AM, Kort EA, Andrews AE, Biraud S, Dlugokencky E, Eluszkiewicz J, Fischer ML, Janssens-Maenhout G, Miller BR, Miller, JB, Montzka S, Nehrkorn T, and Sweeney C, *Anthropogenic emissions of methane in the United States*, *Proceedings of the National Academy of Sciences*, doi:10.1073/pnas.1314392110, 2013.
23. Worden J, Jiang Z, Jones DBA, Alvarado M, Bowman K, Frankenberg C, Kort EA, Kulawik SS, Lee M, Liu J, Payne V, Wecht K, and Worden H, *El Nino, the 2006 Indonesian peat fires, and the distribution of atmospheric methane*, *Geophysical Research Letters*, 40, doi:10.1002/grl.50937, 2013.
22. Graven HD, Keeling RF, Piper SC, Patra PK, Stephens BB, Wofsy SC, Welp LR, Sweeney C, Tans PP, Kelley JJ, Daube BC, Kort EA, Santoni GW, and Bent JD, *Enhanced seasonal exchange of CO₂ by northern ecosystems since 1960*, *Science*, DOI: 10.1126/science.1239207, 2013.
21. Bergamaschi P, Houweling S, Segers A, Krol M, Frankenberg C, Scheepmaker RA, Dlugokencky E, Wofsy SC, Kort EA, Sweeney C, Schuck T, Brenninkmeijer C, Chen H, Beck V, and Gerbig C, *Atmospheric CH₄ in the first decade of the 21st century: Inverse modeling analysis using*

- SCIAMACHY satellite retrievals and NOAA surface measurements*, J. Geophys. Res., doi: 10.1002/jgrd.50480, 2013.
20. Kort EA, Angevine W, Duren R, Miller CE, *Surface observations for monitoring urban fossil fuel CO₂ emissions: minimum site location requirements for the Los Angeles megacity*, J. Geophys. Res., 118(3), 1577-1584, doi: 10.1002/jgrd.50135, 2013.
 19. Kulawik SS, Worden JR, Wofsy SC, Biraud SC, Nassar R, Jones DBA, Olsen ET, Jimenez R, Park S, Santoni GW, Daube BC, Pittman JV, Stephens BB, Kort EA, Osterman GB, and the TES team, *Comparison of improved Aura Tropospheric Emission Spectrometer (TES) CO₂ with HIPPO and SGP aircraft profile measurements*, Atmos. Chem. Phys., 13, 3205-3225, doi:10.5194/acp-13-3205-2013, 2013.
 18. Xiang B, Miller SM, Kort EA, Santoni GW, Daube BC, Commane R, Pittman JV, Angevine W, Ryerson T, Trainer M, Andrews AE, Nehrkorn T, and Wofsy SC, *Nitrous Oxide (N₂O) Emissions from California based on 2010 CalNex Airborne Measurements*, J. Geophys. Res., 118(7), 2809-2820, doi: 10.1002/jgrd.50189, 2013.
 17. Worden J, Wecht K, Frankenberg C, Alvarado M, Bowman K, Kort E, Kulawik S, Lee M, Payne V, Worden H, *CH₄ and CO distributions over tropical fires as observed by the Aura TES satellite instrument and modeled by GEOS-Chem*, Atmos. Chem. Phys., 13, 3679-3692, doi:10.5194/acp-13-3679-2013, 2013.
 16. Newman S, Jeong S, Fischer ML, Xu X, Haman CL, Lefer B, Alvarez S, Rappenglueck B, Kort EA, Andrews AE, Peischl J, Gurney KR, Miller CE, and Yung YL, *Diurnal tracking of anthropogenic CO₂ emissions in the Los Angeles basin mega-city during spring, 2010*, Atmos. Chem. Phys., 13, 4359-4372, doi:10.5194/acp-13-4359-2013, 2013.
 15. Tian H, Lu C, Guangsheng C, Tao B, Pan S, Del Grosso SJ, Xu X, Bruhwiler L, Wofsy SC, Kort EA, and Prior SA, *Contemporary and projected terrestrial methane and nitrous oxide budgets in North America*, National Climate Assessment Biogeochemistry Special Issue, Frontiers in Ecology and the Environment, 10(10), 528-536, doi:10.1890/120057, 2012.
 14. Kort EA, Frankenberg C, Miller CE, and Oda T, *Space-based Observations of Megacity Carbon Dioxide*, Geophysical Research Letters, Vol. 39, L17806, doi: 10.1029/2012GL052738, 2012.
 13. Wennberg PO, Mui W, Wunch D, Kort EA, Blake DR, Atlas EL, Santoni GW, Wofsy SC, Diskin GS, Jeong S, and Fischer ML, *On the Sources of Methane to the Los Angeles Atmosphere*, Environmental Science and Technology, 46 (17), pp 9282-9289, doi: 10.1021/es301138y, 2012.
 12. Kort EA, Wofsy SC, Daube BC, Diao M, Elkins JW, Gao RS, Hintsa EJ, Hurst DF, Jimenez R, Moore FL, Spackman JR, and Zondlo MA, *Atmospheric observations of high latitude Arctic Ocean methane emissions up to 82°north*, Nature Geoscience, 5, 318-321, doi:10.1038/ngeo1452, 2012.
 11. Miller SM, Kort EA, Hirsch AI, Dlugokencky EJ, Andrews AE, Xu X, Tian H, Nehrkorn T, Eluszkiewicz J, Michalak AM, and Wofsy SC, *Regional sources of nitrous oxide over the United States: seasonal variation and spatial distribution*, J. Geophys. Res., 117, D06310, doi:10.1029/2011JD016951, 2012.
 10. Pollack IB, Ryerson TB, Trainer M, Parrish DD, Andrews AE, Atlas EL, Blake DR, Brown SS, Commane R, Daube BC, de Gouw JA, Dube WP, Flynn J, Frost GJ, Gilman JB, Grossberg N, Holloway JS, Kofler J, Kort EA, Kuster WC, Lang PM, Lefer B, Lueb RA, Neuman JA, Nowak JB, Novelli PC, Peischl J, Perring AE, Roberts JM, Santoni G, Schwarz JP, Spackman JR, Wagner NL, Warneke C, Wofsy SC, and Xiang B, *Airborne and ground-based observations of a weekend*

- effect in ozone, precursors, and oxidation products in the California South Coast Air Basin*, J. Geophys. Res., 117, D00V05, doi:10.1029/2011JD016772, 2012.
9. Wecht KJ, Jacob DJ, Wofsy SC, Kort EA, Worden JR, Kulawik SS, Henze DK, Kopacz M, and Payne VH, *Validation of TES methane with HIPPO aircraft observations: implications for inverse modeling of methane sources*, Atmos. Chem. Phys., 12, 182301832, 2012.
 8. Kort EA, Patra PK, Ishijima K, Daube BC, Jiménez R, Elkins J, Hurst D, Moore FL, Sweeney C, and Wofsy SC, *Tropospheric distribution and variability of N₂O: Evidence for strong tropical emissions*, Geophysical Research Letters, Vol. 38, L15806, doi:10.1029/2011GL047612, 2011.
 7. Wofsy SC, & HIPPO team, *HIAPER Pole-to-Pole Observations (HIPPO): Fine grained, global scale measurements for determining rates for transport, surface emissions, and removal of climatically important atmospheric gases and aerosols*, Phil. Trans. of the Royal Society A, 369(1943), 2073-2086, 2011.
 6. Pickett-Heaps CA, Jacob DJ, Wecht KJ, Kort EA, Wofsy SC, Diskin GS, Worthy DEJ, Kaplan JO, Bey I, and Drevet J: *Magnitude and seasonality of wetland methane emissions from the Hudson Bay Lowlands (Canada)*, Atmos. Chem. Phys., 11, 3773-3779, doi:10.5194/acp-11-3773-2011, 2011.
 5. Wunch D, Toon GC, Wennberg PO, Wofsy SC, Stephens BB, Fischer ML, Uchino O, Abshire JB, Bernath P, Biraud SC, Blavier JFL, Boone C, Bowman KP, Browell EV, Campos T, Connor BJ, Daube BC, Deutscher NM, Diao M, Elkins JW, Gerbig C, Gottlieb E, Griffith DWT, Hurst DF, Jimenez R, Keppel-Aleks, Kort EA, Macatangay R, Machida T, Matsueda H, Moore F, Morino I, Park S, Robinson J, Roehl CM, Sawa Y, Sherlock V, Sweeney C, Tanaka T, Zondlo MA, *Calibration of the Total Carbon Column Observing Network using aircraft profile data*, Atmos. Meas. Tech., 3, 1351-1362 doi: 10.5194/amt-3-1351-2010, 2010.
 4. Kort EA, Andrews AE, Dlugokencky EJ, Sweeney C, Hirsch, A, Eluszkiewicz J, Nehrkorn T, Michalak AM, Stephens BB, Gerbig C, Miller JB, Kaplan J, Houweling S, Daube BC, Tans PP, Wofsy SC, *Atmospheric constraints on 2004 emissions of methane and nitrous oxide in North America from atmospheric measurements and a receptor-oriented modeling framework*, Journal of Integrative Environmental Sciences, 7: 2, 125-133, doi:10.1080/19438151003767483, 2010.
 3. Zahniser MS, Nelson DD, McManus JB, Herndon S, Wood E, Shorter JH, Lee BW, Santoni GH, Jimenez R, Daube BC, Park S, Kort EA, Wofsy SC, *Infrared QC laser applications to field measurements of atmospheric trace gas sources and sinks in environmental research: enhanced capabilities using continuous wave QCLs*, SPIE, Vol. 7222, doi:10.1117/12.815172, 2009.
 2. Kort EA, Eluszkiewicz J, Stephens BB, Miller JB, Gerbig C, Nehrkorn T, Daube BC, Kaplan JO, Houweling S, Wofsy SC, *Emissions of CH₄ and N₂O over the United States and Canada based on a receptor-oriented modeling framework and COBRA-NA atmospheric observations*, Geophysical Research Letters, Vol. 35, L18808, doi:10.1029/2008GL034031, 2008.
 1. Cubukcu E, Kort EA, Crozier KB, Capasso F, *Plasmonic laser antenna*, Applied Physics Letters, 89, 093120, 2006.

PRESENTATIONS & POSTERS (*invited)

(indicates Kort group member)

*Huber D, Steiner AL, Kort EA, *Examining the role of soil moisture on soil NO_x emissions*, AMS Annual Meeting 102, 2022.

- He J, McDonald B, Li M, McKeen S, Harkins C, Henze DK, Schwantes R, Frost G, Dickerson RR, Ren X, Kort EA, Smith M, *Inverstigating the Emission Changes over the US during the COVID-19 Pandemic*, AMS Annual Meeting 102, 2022.
- Dacic N, Plant G, Sullivan T, Kort EA, *Using airborne observations over the U.S. Corn Belt to quantify N₂O emission and evaluate underlying controlling processes*, AGU Fall meeting, New Orleans, 2021.
- Dacic N, Plant G, Sullivan T, Kort EA, *Understanding the warming air that comes from food-making and animal land*, Up-Goer Five talk, AGU Fall meeting, New Orleans, 2021.
- Plant G, Kort EA, Fordice G, Brandt AR, Chen Y, Gorchov Negron AM, Schwietzke S, Smith M, Sullivan T, Wilczak P, *Field Measurements of Flare Combustion Efficiencies and NO_x Production Rates in Major US Oil and Gas Basins*, AGU Fall meeting, New Orleans, 2021.
- Gorchov Negron AM, Kort EA, Smith M, Plant G, Adames-Corraliza AF, Chen Y, Brandt AR, Schwietzke S, Zavala-Araiza D, Sullivan T, Wilczak P, *Emissions of CH₄, CO₂, and NO_x from Offshore Alaska Oil and Gas Activities*, AGU Fall meeting, New Orleans, 2021.
- Ayasse A, Duren R, Thorpe AK, Cusworth D, Kort EA, Gorchov Negron AM, Heckler J, Asner G, *Methane Plume Mapping Over Offshore Oil and Gas platforms Using Sun Glint*, AGU Fall meeting, New Orleans, 2021.
- Roten D, Mallia DV, Wu D, Lin JC, Oda T, Kort EA, *The Information Content of Dense XCO₂ Retrievals: the Potential of Extracting Sector-Specific Fluxes with OCO-3*, AGU Fall meeting, New Orleans, 2021.
- Thorpe AK, Kort EA, Duren R, Cusworth D, Herner J, Falk M, Bue BD, Yadav V, Thompson DR, Green RO, Miller CE, Frankenberg C, *COVID-19 impacts on California methane point source emissions*, AGU Fall meeting, New Orleans, 2021.
- Puhl M, Roiger A, Fiehn A, Gorchov Negron AM, Kort EA, Schwietzke, Pisoo IJ, Foulds A, Lee JD, France JL, Allen G, *Aircraft-based Mass Balance Estimate of Methane Emissions from Offshore Gas Facilities in the Southern North Sea*, AGU Fall meeting, New Orleans, 2021.
- He J, McDonald B, Li M, McKeen SA, Harkins C, Schwantes R, Frost GJ, Dickerson RR, Ren X, Kort E, Smith M, *Modeling COVID Perturbation on Urban Emissions over the US*, 10th International Workshop on Air Quality Forecasting Research (IWAQFR), virtual, 2021.
- Lopez-Coto I, Sweeney C, Plant G, McKain K, Ren X, Karion A, Kort E, McDonald B, Gourджи S, Miller J, Dickerson R, Shepson P, Roest G, Gurney K, Stein A, Whetstone J, *Reduction in GHG emissions in the US North East Corridor due to COVID-19 lockdowns as measured by the East Coast Outflow Experiment*, EGU general assembly, virtual, 2021.
- *Kort EA, Gorchov-Negron A, Plant G, Adames-Corraliza A, Hausman C, Allan M, Stoltenberg A, Chen Y, Brandt A, Conley S, Smith M, Ward R, Wilczak P, Schwietzke S, Zavala-Araiza D, *The F³UEL Project (Flaring & Fossil Fuels: Uncovering Emissions & Losses)*, AMS Annual Meeting 101, virtual, 2021.
- Sweeney C, Lopez-Coto ILG, McKain K, Shepson P, Kort EA, Plant G, Ren X, Dickerson RR, Gourджи S, Miller J, *The East Coast Outflow Experiment before and during SARS-CoV-2*, AMS Annual Meeting 101, virtual, 2021.
- Yu X, Millet DB, Wells KC, Henze DK, Cao H, Griffis TJ, Kort EA, Plant G, Deventer MJ, Kolka RK, Roman DT, Davis KJ, Desai AR, Baier BC, McKain K, Czarnetzki AC, Bloom AA, *Aircraft-based Inversions Quantify the Importance of Wetlands and Livestock for Upper Midwest Methane Emissions*, AMS Annual Meeting 101, virtual, 2021.

- *Kort EA, Thorpe AK, Duren RM, Cusworth D, Miller CE, Green RO, Eastwood ML, Bue BB, Olson-Duvall W, Chapman J, *How has the Covid-19 pandemic response impacted methane emissions in California?* AGU Fall Meeting, virtual, 2020.
- Gerlein-Safdi C, Bloom AA, Plant G, Kort EA, Ruf CS, *Improved prediction of tropical wetland methane emissions using new CYGNSS-based inundation maps*, AGU Fall Meeting, virtual, 2020.
- Gorchov-Negron A, Kort EA, Adames-Corraliza AF, Brandt AR, Chen Y, Conley S, Hausman C, Plant G, Schwietzke S, Smith M, Zavala-Araiza D, *Methane and Nitrogen Oxides Emissions from the Offshore Oil and Gas Supply Chain in the U.S. Gulf of Mexico*, AGU Fall Meeting, virtual, 2020.
- Yang EG, Kort EA, Ott LE, Feng S, Lauvaux T, *Toward Using Space-based CO₂ and NO₂ observations to Estimate Urban CO₂ Emissions*, AGU Fall Meeting, virtual, 2020.
- Roten D, Wu D, Lin JC, Oda T, Kiel M, Eldering A, Kort EA, *Quantifying CO₂ Emissions from World Megacities with Emerging Dense Urban CO₂ Satellite Data: Using Lagrangian Particle Dispersion Modeling in a Los Angeles Case Study*, AGU Fall Meeting, virtual, 2020.
- Duren R, Thorpe AK, Cusworth D, Kort EA, Heckler J, Olson-Duvall W, Bue B, Downey N, Dennison PE, Asner G, Green RO, Miller CE, *Methane point-source emissions from oil, gas, and coal operations*, AGU Fall Meeting, virtual, 2020.
- Schimmel D, Ott LE, Liu Z, Chatterjee A, Stephens BB, McKinley GA, Lovenduski NS, Liu J, Bowman KW, Kort EA, Poulter B, Miller CE, *Impacts of the Novel Coronavirus shutdowns on CO₂ emissions, concentrations and distribution*, AGU Fall Meeting, virtual, 2020.
- Chen Y, Shwerwin ED, Berman ESF, Jones BB, Gordon M, Kort EA, Brandt AR, *Quantifying methane emissions from oil and gas operations in the New Mexico Permian Basin with airplane-based hyperspectral detection*, AGU Fall Meeting, virtual, 2020.
- Gonzalez A, Millet DB, Yu X, Baier B, DiGangi JP, Gvakharia A, Kort EA, McKain K, Plant G, *Fossil vs. non-fossil CO sources in the US: New airborne constraints from ACT-America and GEM*. AGU Fall Meeting, virtual, 2020.
- Ahn D, Ren X, Stratton P, Dressen J, Shepson P, Kort EA, Sweeney C, Turner AJ, Whetstone FR, Salawitch RJ, Dickerson RR, *Reduced greenhouse gas emissions seen from the in-situ aircraft observation over the Baltimore, MD-Washington, D.C. area during COVID-19 pandemic period: Mass balance flux estimation of CO₂, CO, CH₄ and source sector attribution using activity metric data*, AGU Fall Meeting, virtual, 2020.
- Dickerson RR, Ren X, Salawitch RJ, Canty T, He H, Ahn D, Stratton P, Hall DL, Zeng N, Dressen J, Lopez-Coto I, Karion A, Whetstone JR, Sweeney C, Stein AF, Luke WT, Kort EA, Shepson P, McDonald BC, *Measurements and models of COVID-19 impacts on short-lived pollutants and greenhouse gases over the eastern US*, AGU Fall Meeting, virtual, 2020.
- *Plant G, Kort EA, Sweeney C, *Data-driven Urban Methane Emission Estimates Based on Aircraft Observations: Sensing Considerations and Results*, CLEO: Science and Innovations, Optical Society of America, virtual, 2020.
- *Plant G, Kort EA, Sweeney C, *Urban Methane Emission Estimates Based on Aircraft and Satellite Observations*, Applied Industrial Spectroscopy, Optical Society of America, virtual, 2020.
- Lopez-Coto I, Plant G, McKain K, Ren X, Karion A, Sweeney C, Kort EA, McDonald B, Gourdjji S, Miller, JB, Dickerson RR, Shepson PB, Roest G, Gurney K, Prasad K, Whetstone JR, *East Coast Outflow (ECO) experiment during pandemic times*, NOAA Global Monitoring Annual Conference, virtual, 2020.

- *Plant G, Kort EA, Maasackers JD, Aben I, *Exploring urban methane emissions from TROPOMI CH₄ and CO observations*, NOAA Global Monitoring Annual Conference, virtual, 2020.
- Long MC, Stephens BB, Sweeney C, Kort EA, Keeling RF, McKain K, *The Atmospheric Signature of Southern Ocean Carbon Fluxes*, AGU Ocean Sciences, San Diego, 2020.
- Sweeney C, Plant G, Kort E, Floerchinger C, *Tracking Urban Emissions of Greenhouse Gases during the East Coast Outflow (ECO) Experiment*, AMS100, Boston, 2020.
- *Kort EA, Gorchov Negron AM, Plant G, *Methane Emissions from Oil and Gas Systems: Losses in Production and Consumption*, AGU Fall Meeting, San Francisco, CA, 2019.
- *Kort EA, Gvakharia A, Plant G, *Evaluating Regional N₂O Emissions and Drivers Using Airborne Observations*, AGU Fall Meeting, San Francisco, CA, 2019.
- Huber D, Kort EA, Steiner AL, *Space-Based Observations of Seasonal NO_x Emissions from Agriculture*, AGU Fall Meeting, San Francisco, CA, 2019.
- Plant G, Kort EA, Maasackers JD, Aben I, *Urban Methane Emissions Estimates from TROPOMI CH₄ and CO Observations*, AGU Fall Meeting, San Francisco, CA, 2019.
- Wu D, Lin JC, Fasoli B, Oda T, Kort EA, Duarte H, *Towards quantifying urban CO₂ emissions for global cities using column CO₂ and SIF data*, AGU Fall Meeting, San Francisco, CA, 2019.
- Sweeney C, Plant G, Kort EA, Floerchinger C, *Detecting urban emissions using commercial aircraft measurements*, AGU Fall Meeting, San Francisco, CA, 2019.
- Nelson RR, Eldering A, Pavlick R, Kurosu TP, Kort EA, Oda T, Nassar R, O'Dell C, Taylor T, Somkuti P, Fisher B, Merrelli AJ, Crisp D, Kiel M, *OCO-3 Snapshot Area Mapping Mode: Early Results*, AGU Fall Meeting, San Francisco, CA, 2019.
- Lin JC, Wu D, Roten D, Fasoli B, Oda T, Kort EA, *Overcoming challenges in using satellite-based CO₂ data to understand carbon emissions from cities around the world*, AGU Fall Meeting, San Francisco, CA, 2019.
- Yu X, Millet DB, Wells KC, Griffis TJ, Henze DK, Cao H, Conley S, Smith M, Gvakharia A, Kort EA, Plant G, Czarnetzki A, *New constraints on regional methane emissions in the US Upper Midwest based on GEM aircraft measurements and the GEOS-Chem model*, AGU Fall Meeting, San Francisco, CA, 2019.
- Kort EA, *Role of Space-Based Measurements in Urban Emissions Monitoring*, IG3IS/TRANSCOM meeting, Paris, 2019.
- Kort EA, *Observational constraints on anthropogenic CO₂ emissions: current capabilities and the impact on detecting carbon-climate feedbacks*, AGU Chapman Conference, Understanding Carbon Climate Feedbacks, Scripps, 2019
- Kort EA, Gorchov Negron AM, Smith ML, Conley S, *Airborne observation of fugitive methane emissions from offshore oil and gas platforms*, Atmospheric Chemistry Gordon Conference, Maine, 2019.
- Kort EA, Gvakharia A, Smith ML, Conley S, *Using airborne observations to quantify N₂O emissions from fertilizer plants and croplands in the Mississippi River Valley*, 8th International Symposium on Non-CO₂ Greenhouse Gases, Amsterdam, 2019.
- *Kort EA, Turner AJ, Frankenberg C, *Contemporary Atmospheric Methane: Addressing Contradictions and Pathways Forwards*, AGU Fall Meeting, Washington DC, 2018.

- Negron AG, Kort EA, Smith ML, Conley S, *Methane Emissions from Offshore Oil and Gas Platforms in the Gulf of Mexico*, AGU Fall Meeting, Washington DC, 2018.
- Gvakharia A, Kort EA, Smith ML, Conley S, Frauhammer K, DelGrosso S, *Quantification and Analysis of Agricultural N₂O Fluxes Using Continuous Airborne Atmospheric Observations*, AGU Fall Meeting, Washington DC, 2018.
- Huang Y, Kort EA, Karion A, Ware J, Plant G, Sweeney C, Floerchinger CR, Mueller K, *Excess Urban Methane Emissions from the Northeast Corridor Washington, DC/Baltimore Metropolitan Region*, AGU Fall Meeting, Washington DC, 2018.
- Yang EG, Kort EA, Wu D, Lin JC, Ye X, Lauvaux T, Oda T, *Toward using OCO-2 Observations and Lagrangian Modeling to Estimate Urban Carbon Dioxide Emissions in the Middle East*, AGU Fall Meeting, Washington DC, 2018.
- Sweeney C, Kort EA, Floerchinger CR, Plant G, Karion A, Shepson P, *The urban methane paradox: Results from the 2018 East Coast Outflow experiment*, AGU Fall Meeting, Washington DC, 2018.
- Floerchinger CR, Wofsy SC, Hainy KD, Sweeney C, Newberger T, Kort EA, Plant G, Gvakharia A, Shepson P, *Fractional methane emissions from natural gas infrastructure in urban domains in the Eastern United States using airborne measurements and Lagrangian Particle Dispersion Modeling*, AGU Fall Meeting, Washington DC, 2018.
- Karion A, Callahan W, Ghosh S, Gourdji S, Lopez-Coto I, Kort EA, Mueller K, Prinzivalli S, Stock M, Prasad K, Whetstone JR, Wong TM, *Overview of the North-East Corridor: Baltimore/Washington Urban Greenhouse Gas Observation Network*, AGU Fall Meeting, Washington DC, 2018.
- Yu X, Millet DB, Wells KC, Griffis TJ, Baker JM, Conley S, Smith M, Gvakharia A, Kort EA, Plant G, Wood JD, *New top-down constraints on methane emissions from animal agriculture based on GEM airborne measurements in the US Upper Midwest*, AGU Fall Meeting, Washington DC, 2018.
- Kort EA, Gvakharia A, Plant G, Smith ML, Conley S, *The 2017 Fertilizer Emissions Airborne Study (FEAST): Quantifying N₂O emissions from croplands and fertilizer plants in the Mississippi River Valley*, NSF Atmospheric Chemistry Principal Investigator meeting, Boulder, 2018.
- Kort EA, Gvakharia A, Smith ML, Conley S, Frauhammer K, *The 2017 Fertilizer Emissions Airborne Study (FEAST): Quantifying N₂O emissions from croplands and fertilizer plants in the Mississippi River Valley*, AGU Fall Meeting, New Orleans, 2017.
- Gvakharia A, Kort EA, Smith ML, Conley S, *Airborne testing and demonstration of a new flight system based on an Aerodyne N₂O-CO₂-CO-H₂O mini-spectrometer*, AGU Fall Meeting, New Orleans, 2017.
- Yang EG, Kort EA, Ware JF, Ye X, Lauvaux T, Wu D, Lin JC, Oda T, *Using OCO-2 observations and Lagrangian modeling to constrain urban carbon dioxide emissions in the Middle East*, AGU Fall Meeting, New Orleans, 2017.
- Ye X, Lauvaux T, Kort EA, Oda T, Feng S, Lin J, Yang EG, Wu D, Elderling A, *Quantifying global fossil-fuel CO₂ emissions: from OCO-2 to optimal observing designs*, AGU Fall Meeting, New Orleans, 2017.
- Wozniak M, Steiner A, Ault A, Kort EA, Lersch T, Casuccio G, *Lidar measurements of boundary layer depolarization and CCSEM-EDX compositional analysis of airborne particles on collocated passive samplers throughout the forest canopy during the 2016 airborne pollen season at UMBS, Pellston, MI*, AGU Fall Meeting, New Orleans, 2017.

- Gourdji SM, Yadav V, Karion A, Mueller KL, Kort EA, Conley S, Ryerson T, Nehrkorn T, *Quantifying point source emissions with atmospheric inversions and aircraft measurements: the Aliso Canyon natural gas leak as a tracer experiment*, AGU Fall Meeting, New Orleans, 2017.
- Wu D, Lin J, Oda T, Ye X, Lauvaux T, Yang EG, Kort EA, *Towards Interpreting the Signal of CO₂ Emissions from Megacities by Applying a Lagrangian Receptor-oriented Model to OCO-2 XCO₂ data*, AGU Fall Meeting, New Orleans, 2017.
- McKain K, Sweeney C, Newberger T, Daube B, Stephens BB, Kort E, Commane R, Wofsy SC, Morgan EJ, Bent JD, Keeling RF, Montzka S, *Adaptation of a commercial greenhouse gas analyser for airborne measurements with expanded altitude range and application on the ORCAS and ATom campaigns*, GGMT, Switzerland, 2017.
- Vogel FR, Turnbull J, Kort E, Gurney K, DeCola P, Tarasova O, and the IG3IS team, *Integrated urban Greenhouse Gas Information System: Advances in the urban GHG monitoring implementation plan and results of previous and current city-scale studies*, GGMT, Switzerland, 2017.
- Stephens BB, Long MC, Keeling RF, Sweeney C, Kort EA, Morgan EJ, Bent JD, McKain K, Mikaloff-Fletcher S, Patra P, *Atmospheric oxygen constraints on Southern Ocean air-sea CO₂ flux seasonality*, ICDC10, Switzerland, 2017.
- McKain K, Sweeney C, Long M, Stephens B, Kort E, Morgan E, Bent J, Keeling R, *Using large-scale vertical gradients of atmospheric trace gases to constrain air-sea CO₂ fluxes in the Southern Ocean*, ICDC10, Switzerland, 2017.
- *Kort EA, Stephens BB, Long MC, Keeling R, Sweeney C, and the ORCAS Science Team, *Early Results from ORCAS: The O₂/N₂ Ratio and CO₂ Airborne Southern Ocean Study*, American Meteorological Society Annual Meeting, Seattle, 2017.
- Kort EA, Yang E, Ware J, Ye X, Lauvaux T, Wu D, Lin J, Oda T, *Towards constraining megacity fossil-fuel emissions estimates with OCO-2 observations and Lagrangian modeling*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Hoecker-Martinez M, Kort EA, Long M, Stephens B, *Using Lagrangian flights and modeling to study O₂ and CO₂ fluxes over the Southern Ocean during the O₂/N₂ Ratio and CO₂ Airborne Study (ORCAS)*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Stephens B, Long M, Keeling R, Sweeney C, Kort EA, Bent J, Morgan E, Watt A, Hoecker-Martinez M, Daube B, McKain K, Smith M, Newberger T, *Southern Ocean Zonal Scale Summertime Oxygen Outgassing and Carbon Dioxide Ingassing*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Atlas E, Schauffler S, Donets V, Apel E, Hornbrook R, Hills A, Stephens B, Kort EA, Sweeney C, Gierach M, *Trace Gas Distributions and Correlations Observed in The Southern Ocean Atmosphere During the ORCAS Mission*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Smith M, Kort EA, Gvakharia A, Sweeney C, Conley S, *Airborne Quantification of Methane Emissions over the Four Corners Region*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Thorpe A, Frankenberg C, Thompson D, Duren R, Aubrey A, Bue B, Green R, Gerilowski K, Krings T, Borchardt J, Kort EA, Sweeney C, Conley S, Roberts D, Dennison P, Ayasse A, *Attributing Methane and Carbon Dioxide Emissions from Anthropogenic and Natural Sources Using AVIRIS-NG*, American Geophysical Union Fall meeting, San Francisco, 2016.

- Ware J, Yadav V, Mueller K, Kort EA, Verhulst K, *Robustness to Atmospheric Transport Error in Urban Greenhouse Gas Flux Inversion: a Los Angeles Case Study*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Ye X, Lauvaux T, Kort EA, Lin J, Oda T, Yang E, *Inverse modeling of fossil fuel CO₂ emissions at urban scale using OCO-2 retrievals of total column CO₂*, American Geophysical Union Fall meeting, San Francisco, 2016.
- Barkley Z, Lauvaux T, Davis K, Deng A, Miles N, Richardson S, Martins D, Cao Y, Sweeney C, McKain K, Schwietzke S, Smith M, Kort EA, *Top-down Estimate of Methane Emissions from Natural Gas Production in Northeastern Pennsylvania Using Aircraft and Tower Observations*, American Geophysical Union Fall meeting, San Francisco, 2016.
- *Kort EA, Smith M, Gvakharia A, Sweeney C, Frankenberg C, Conley S, *TOPDOWN 2015: A Multi-aircraft Assessment of Methane Emissions in the Four Corners Region*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Ware J, Kort E, Duren R, DeCola P, *Remote Sensing of Urban Mixed Layer Structure in Los Angeles, with Applications to Greenhouse Gas Emissions Quantification*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Gvakharia A, Kort E, Sweeney C, Peischl J, Ryerson T, Brandt A, Smith M, *Quantitative airborne assessment of gas flaring combustion efficiency in the Bakken Shale*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Smith M, Kort E, Karion A, Sweeney C, Gvakharia A, *Quantification of Methane and Ethane Emissions from the San Juan Basin*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Sweeney C, Kort E, Rella C, Conley S, Karion A, Lauvaux T, Frankenberg C, *Using a multi-scale approach to identify and quantify oil and gas emissions: a case study for GHG emissions verification*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Thorpe A, Thompson D, Frankenberg C, Aubrey A, Bue B, Green R, Kort E, Eastwood M, Helmlinger M, Nolte S, *Directly attributing methane emissions to point source locations using the next generation Airborne Visible/Infrared Imaging Spectrometer (AVIRIS-NG)*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Cui Y, Brioude J, Angevine W, McKeen S, Peischl J, Nowak J, Henze D, Bousserez, Fischer M, Jeong S, Liu Z, Michelsen H, Santoni G, Daube B, Kort E, Frost G, Ryerson T, Wofsy S, Trainer M, *Inverse Estimation of California Methane Emissions and Their Uncertainties using FLEXPART-WRF*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Patra P, Saeki T, Dlugokencky E, Ishijima K, Umezawa T, Ito A, Aoki S, Morimoto S, Kort E, Crowell A, Kumar K, Nakazawa T, *Regional emission and loss budgets of atmospheric methane (2002–2012)*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Barkley Z, Davis K, Lauvaux T, Miles N, Richardson S, Martins D, Deng A, Cao Y, Sweeney C, Karion A, Smith M, Kort E, Schwietzke S, *Constraining Methane Emissions from Natural Gas Production in Northeastern Pennsylvania Using Aircraft Observations and Mesoscale Modeling*, American Geophysical Union Fall meeting, San Francisco, 2015.
- Stephens BB, Bent JD, Watt AS, Shertz SR, Keeling RF, Wofsy SC, Kort EA, Daube BC, Santoni GW, *Airborne measurements of oxygen concentration from the surface to the lower stratosphere*, GGMT, Scripps, 2015.

- *Kort EA, *Observing the Anthropogenic Miasma: Methane, Ethane, and Carbon Dioxide*, Atmospheric Chemistry Gordon Research Conference, Waterville Valley, NH, 2015.
- Kort EA et al., *OCO-2, megacities, and mixed layer depths*, Los Angeles – Paris Megacities Carbon project meeting, Paris, France, 2015.
- Ware J, Kort EA, DeCola P, Duren R, *PBL observations and analysis*, Megacities Carbon Project Workshop, Pasadena, CA, 2015.
- Kort EA et al., *OCO-2 spatial gradient studies*, Megacities Carbon Project Workshop, Pasadena, CA, 2015.
- *Kort EA, Smith M, Gvakharia A, Sweeney C, Karion A, Peischl J, Ryerson T, Frankenberg C, Dubey M, *Locating, quantifying, and attributing methane emissions from fossil-fuel extraction*, American Chemical Society National Meeting, Denver, CO, 2015.
- Duren RM, Gurney KR, Miller C, Kort EA, Rao P, Eldering A, Keeling R, Weiss R, Miller J, Lehman S, Fischer M, *Understanding the carbon emissions of megacities*, NACP PI meeting, Washington DC, 2015.
- *Kort EA, Ware J, Duren R, Schimel D, Miller CE, DeCola P, *Informing urban carbon emissions with atmospheric observations: motivation, methods, and reducing uncertainties*, AGU Fall meeting, San Francisco, 2014.
- Smith M, Kort E, Karion A, Sweeney C, Peischl J, Ryerson T, *Airborne Ethane Observations over the Barnett and Bakken Shale Formations: Quantification of Ethane Fluxes and Attribution of Methane Emissions*, AGU Fall meeting, San Francisco, 2014.
- Lavoie T, Shepson P, Cambaliza MO, Karion A, Sweeney C, Kort EA, Hirst B, Wolter S, Conley S, Faloon I, Lyon D, Alvarez R, *Measurements of Point Source Methane Emissions in the Barnett Shale and Eagle Ford Basins*, AGU Fall meeting, San Francisco, 2014.
- *Miller S, Xiang B, Kort E, Michalak A, Wofsy S, Andrews A, Dlugokencky E, *Regional to national constraints on US N₂O emissions using atmospheric data*, AGU Fall meeting, San Francisco, 2014.
- Wong C, Fu D, Pongetti T, Newman S, Kort E, Duren R, Hsu Y, Miller C, Yung Y, Sander S, *Estimating Top-down Emissions (2011-2014) of CH₄ and CO₂ from Los Angeles by an FTS Atop Mount Wilson*, AGU Fall meeting, San Francisco, 2014.
- Gray J, Frohling S, Kort E, Ray D, Kucharik C, Ramankutty N, Friedl M, *A direct human influence on atmospheric CO₂ seasonality from increased cropland productivity*, AGU Fall meeting, San Francisco, 2014.
- *Duren R, Gurney K, Hutyrá L, Miller C, Kort E, Rao P, Eldering A, *Characterizing the carbon emissions of megacities*, AGU Fall meeting, San Francisco, 2014.
- *Graven H, Keeling R, Piper S, Patra P, Stephens B, Wofsy S, Welp L, Sweeney C, Tans P, Kelley J, Daube B, Kort E, Santoni G, Bent J, Thomas R, Prentice I, *Enhanced Seasonal Exchange of CO₂ by Northern Ecosystems—Observations and Models*, AGU Fall meeting, San Francisco, 2014.
- Miller S, Michalak A, Wofsy S, Andrews A, Biraud S, Dlugokencky E, Fischer M, Janssens-Maenhout G, Kort E, Miller B, Miller J, Montzka S, Worthy D, *Methane emissions in the US and Canada: contributions of various source sectors and evolution of emissions over time*, AGU Fall meeting, San Francisco, 2014.

- Mielke-Maday I, Petron G, Miller B, Frost G, Peischl J, Kort E, Smith M, Karion A, Dlugokencky E, Montzka S, Sweeney C, Ryerson T, Tans P, Schnell R, *Hydrocarbon emissions in the Bakken oil field in North Dakota*, AGU Fall meeting, San Francisco, 2014.
- Peischl J, Ryerson T, Karion A, Aikin K, Kort E, Newberger T, Smith M, Sweeney C, Trainer M, Wolter S, *A quantification of methane emissions from the Bakken shale play region of North Dakota*, AGU Fall meeting, San Francisco, 2014.
- Bent J, Keeling R, Stephens B, Wofsy S, Daube B, Kort E, Pittman J, Jimenez-Pizarro R, Santoni G, *Observations of a stratospheric depletion and annual mean interhemispheric gradient in the atmospheric Ar/N₂ ratio from the HIPPO Global campaign*, AGU Fall meeting, San Francisco, 2014.
- *Wofsy SC, Kort E, Crosson E, Keutsch F, *Recent developments in measurements of atmospheric trace gases*, CLEO: Science and Innovations, 2014.
- Kort EA, Smith ML, Karion A, Sweeney C, Frankenberg C, Wunch D, Costigan K, Lindenmaier R, Dubey M, *New Space-based and Airborne measurements and approaches to quantify and attribute Methane emissions*, Global Emissions Initiative (GEIA) conference, Boulder, CO, 2014.
- Kort EA, Frankenberg C, Wunch D, Costigan K, Lindenmaier R, Dubey M, *Space-based observations of anomalous methane emissions: Four Corners*, IWGGMS10, Noordwijk, Netherlands, 2014.
- Wong C, Fu D, Pongetti T, Newman S, Kort E, Duren R, Hsu YK, Miller C, Yung Y, Sander S, *Tracking greenhouse gas emissions from a US megacity by remote sensing from a mountaintop site*, EGU General Assembly Conference, Vienna, 2014.
- *Kort EA, et al., *Why and how to use atmospheric observations to study carbon emissions from LA and other megacities*, AGU Fall meeting, San Francisco, 2013.
- *Kort EA, et al., *Towards resolving North America's methane mystery with atmospheric observations*, AGU Fall meeting, San Francisco, 2013.
- Hopkins FM, Randerson JT, Bush S, Ehleringer JR, Lai C, Kort EA, Blake DR, *Methane Hotspots in the Los Angeles Megacity*, AGU Fall meeting, San Francisco, 2013.
- Dubey M, Lindemaier R, Arata C, Costigan KR, Frankenberg C, Kort EA, Rahn TA, Henderson BG, Love SP, Aubrey AD, *Field Observations of Methane Emissions from Unconventional and Conventional Fossil Fuel Exploration*, AGU Fall meeting, San Francisco, 2013.
- Kort EA, Frankenberg C, Miller CE, Dubey M, Costigan K, Lindenmaier R, *Earth and Space-based observations of CO₂ and CH₄ to quantify and attribute anthropogenic emissions*, Gordon Research Conference, Mt. Snow, VT, 2013. (poster)
- Wong KW, Fu D, Sander S, Pongetti T, Kort E, Newman S, Yung Y, *Mapping greenhouse gas emissions in the Los Angeles basin by remote sensing using a Fourier Transform Spectrometer on Mt. Wilson*, EGU General Assembly Conference, Vienna, 2013.
- Kort EA, Angevine W, DeCola P, Duren R, Frankenberg C, Miller CE, Newman S, Oda T, Roehl C, Wennberg PO, Wunch D, *Detecting policy-relevant megacity greenhouse gas emission changes from space and earth-based observations*, NACP All-Investigators Meeting, Albuquerque, 2013.
- *Kort EA, Frankenberg C, Miller CE, Oda T, *Observing megacity greenhouse gas emissions from space*, AGU Fall meeting, San Francisco, 2012.
- *Kort EA, Angevine W, Decola P, Duren R, Miller CE, Newman S, Roehl C, Wennberg P, Wunch D, *Detecting policy-relevant greenhouse gas emission changes with atmospheric observations*, AGU Fall meeting, San Francisco, 2012.

- Worden J, Wecht K, Frankenberg C, Alvarado MJ, Bergamaschi P, Bowman KW, Kort EA, Kulawik SS, Lee M, Payne V, Worden HM, *Top-down and bottom up estimates of methane emissions from the 2006 Indonesian peat fires*, AGU Fall meeting, San Francisco, 2012.
- Jacob DJ, Wang Q, Wecht K, Perring AE, Schwarz JP, Spackman JR, Fahey DW, Kort EA, Wofsy SC, *Using HIPPO observations to constrain the atmospheric budgets of black carbon and methane*, AGU Fall meeting, San Francisco, 2012.
- Peischl J, McKeen SA, Neuman J, Nowak JB, Ryerson TB, Trainer M, Commane R, Daube B, Kort EA, Santoni GW, Wofsy SC, Xiang B, Parrish DD, *Emissions of Methane, Nitrous Oxide, and Ammonia from California's San Joaquin Valley*, AGU Fall meeting, San Francisco, 2012.
- Pittman JV, Wofsy SC, Baube B, Kort EA, Santoni GW, Jimenez-Pizarro R, Park S, Gao R, Spackman JR, Moore FL, Hintsä E, Elkins JW, Montzka SA, Miller BR, Sweeney C, Zondlo MA, Diao M, Patra PK, Ishijima K, *Examination of the Tropical Tropopause Layer during HIPPO*, AGU Fall meeting, San Francisco, 2012.
- Kulawik SS, Bowman KW, Lee M, Jones DB, Worden J, Nassar R, O'Dell CW, Wofsy SC, Wunch D, Wennberg PO, Griffith DW, Sherlock V, Deutscher NM, Notholt J, Warneke T, Morino I, Sussmann R, Jimenez-Pizarro R, Park S, Daube B, Pittman JV, Stephens BB, Kort EA, Santoni GW, *Constraints on tropospheric CO₂ from TES and ACOS-GOSAT assessed with TCCON and HIPPO measurements*, AGU Fall meeting, San Francisco, 2012.
- Patra PK, Wofsy SC, Ishijima K, Ghosh A, Stephens BB, Atlas EL, Montzka SA, Elkins JW, Kort EA, Santoni GW, Pittman JV, Daube B, Moore FL, Miller BR, Hintsä E, *Evaluation of ACTM forward simulations using HIPPO*, AGU Fall meeting, San Francisco, 2012.
- Stephens BB, Wofsy SC, Bent JD, Daube B, Graven HD, Jimenez-Pizarro R, Keeling RF, Kort EA, Park S, Pittman JV, Santoni GW, Sweeney C, *Seasonal Northern Hemispheric CO₂ Exchange as Observed by HIPPO*, AGU Fall meeting, San Francisco, 2012.
- Wofsy SC, Stephens BB, Keppel-Aleks G, Baube B, Pittman JV, Park S, Jimenez-Pizarro R, Santoni GW, Kort EA, Atlas EL, Moore FL, Elkins JW, Perring AE, Romashkin P, Patra PK, Jacob DJ, Wecht K, Bent JD, Keeling RF, *Global distributions of CO₂, trace gases and potential temperature in HIPPO: lessons about global rates of tracer transport and inverse modeling*, AGU Fall meeting, San Francisco, 2012.
- Duren RM, Kort EA, Miller CE, *The Megacities Carbon Project: measuring urban carbon emissions*, AGU Fall meeting, San Francisco, 2012.
- Newman S, Xu S, Kort EA, Miller CE, Sander S, Duren RM, Eldering A, Yung YL, *Seasonal Variations in Fossil Fuel Emissions in the Los Angeles Megacity*, AGU Fall meeting, San Francisco, 2012.
- Santoni GW, Xiang B, Kort EA, Daube B, Andrews AE, Sweeney C, Wecht K, Peischl J, Ryerson TB, Angevine WM, Trainer M, Nehrkorner T, Eluskiewicz J, Wofsy SC, *California's Methane Budget derived from CalNex P-3 Aircraft Observations and the WRF-STILT Lagrangian Transport Model*, AGU Fall meeting, San Francisco, 2012.
- Chang RY, Miller CE, Dinardo SJ, Karion A, Sweeney C, Daube B, Pittman JV, Miller JB, Budney JW, Gottlieb EW, Santoni GW, Kort EA, Wofsy SC, *Greenhouse gas measurements from aircraft during CARVE*, AGU Fall meeting, San Francisco, 2012.
- Perring AE, Schwarz JP, Spackman JR, Gao R, Watts LA, Daube B, Santoni GW, Kort EA, Pittman JV, Wofsy SC, Fahey DW, *An analysis of black carbon in the northern Pacific*, AGU Fall meeting, San Francisco, 2012.

- Hintsaj EJ, Moore FL, Dutton GS, Hall BD, Nance JD, Hurst DF, Novelli PC, Elkins JW, Daube B, Kort EA, Pittman JV, Santoni GW, Jaegle L, *The Atmospheric Distribution of Molecular Hydrogen (H₂) and Related Species During HIPPO and Other Recent Airborne Missions*, AGU Fall meeting, San Francisco, 2012.
- Kort EA, Frankenberg C, Miller CE, *Space-based Observations of Megacity Carbon Dioxide*, IWGGMS8, Caltech, 2012.
- Kort EA, *Urban CO₂ and CH₄ source attribution and network sensitivity*, Megacities Carbon Project workshop, Caltech, Pasadena, CA 2012.
- Kort EA, *Estimating emissions trends from Atmospheric Concentrations*, Megacities Carbon Project workshop, Caltech, Pasadena, CA 2012.
- Kort EA, Miller CE, Duren R, Eldering A, Sander S, Newman S, *Megacity Carbon: Observing system study for tracking Los Angeles greenhouse gas emission trends*, EGU Meeting, Vienna, Austria, 2012.
- Newman S, Hsu YK, Kort EA, Sander SP, Eldering A, Duren RM, Miller CE, Yung YL, *Initial results from a CO₂ monitoring network in the Los Angeles megacity*, EGU Meeting, Vienna, Austria, 2012.
- Kort EA, *Arctic methane: that which comes from the sea*, HIPPO Science Team Meeting, Boulder, CO, 2012.
- Kort EA, Miller CE, Duren R, Eldering A, Sander S, Newman S, *Megacity Carbon: Initial network design for Los Angeles*, AGU Fall Meeting, San Francisco, CA, 2011.
- Payne V, Xiao Y, Eluszkiewicz J, Henderson J, Nehrkorn T, Sweeney C, Andrews AE, Worden J, Kulawik S, Worthy D, Shephard MW, Wofsy SC, Kort EA, Wecht K, Tian H, *Constraints on High-Latitude Regional Methane Fluxes Through Integration of Satellite, Aircraft and Ground-Based Observations with Models*, AGU Fall Meeting, San Francisco, CA, 2011.
- Miller SM, Kort EA, Worthy D, Havice TC, Dlugokencky EJ, Andrews AE, Wofsy SC, *Large-scale environmental drivers of North American methane emissions*, AGU Fall Meeting, San Francisco, CA, 2011.
- Pan L, Munchak L, Kinnison DE, Wofsy SC, Pittman JV, Kort EA, Daube B, Atlas EL, *On The Use of in situ Chemical Tracer Measurements in Diagnosing Chemistry Climate Models*, AGU Fall Meeting, San Francisco, CA, 2011.
- Guerrero OJ, Jimenez R, Lin JC, Diskin GS, Sachse GW, Kort EA, Kaplan JO, *Bayesian-inversion adjusted methane fluxes in Colombia and Panama*, AGU Fall Meeting, San Francisco, CA, 2011.
- Peischl J, Ryerson TB, Andrews AE, Commane R, Daube B, Diskin GS, Dlugokencky EJ, Frost GJ, Holloway JS, Kofler J, Kort EA, Lang P, Masarie K, McKeen SA, Novelli PC, Sachse GW, Santoni GW, Trainer M, Vay SA, Wofsy SC, Xiang B, Parrish DD, *Emissions of Methane from the Los Angeles Basin and Comparison to Inventories*, AGU Fall Meeting, San Francisco, CA, 2011.
- Smith K, Atlas EL, Zhu X, Pope L, Lueb R, Moore FL, Miller BR, Montzka SA, Elkins JW, Nance D, Sweeney C, Pan L, Kinnison DE, Hendershot R, Romashkin P, Wofsy SC, Daube B, Kort EA, Jimenez R, Pittman JV, *Selected trace gas distributions and relationships: a comparison of HIAPER Pole to Pole Observations (HIPPO) and the Whole Atmosphere Community Climate Model (WACCM)*, AGU Fall Meeting, San Francisco, CA, 2011.
- Kort EA, *High-resolution Inverse Modeling for LA*, Monitoring CO₂ in Megacities: Paris – Los Angeles workshop, Paris, France, 2011.

- Kort EA, *Atmospheric observations and emissions estimates of methane and nitrous oxide from regional to global scale*, Harvard University, Cambridge, MA, 2011.
- Kort EA, *Non-CO₂ inter-instrument comparisons*, HIPPO science team meeting, Boulder, CO 2011.
- Kort EA, *Tropical N₂O, Arctic CH₄, and future TRANSCOM comparisons*, HIPPO science team meeting, Boulder, CO 2011.
- Kort EA, *Harvard QCLS instrument*, HIPPO science team meeting, Boulder, CO 2011.
- Kort EA, Daube BC, Ishijima K, Patra P, Jimenez R, Wofsy SC, *Global distributions of nitrous oxide and implications for emissions: Measurements from the HIPPO (HIAPER Pole to Pole Observations) campaign and comparisons to a global model*, AGU Fall Meeting, San Francisco, CA, 2010. (poster)
- Thompson RL, Bousquet P, Chevallier F, Dlugokencky EJ, Vermeulen AT, Aalto T, Haszpra L, meinhardt F, O'Doherty S, Moncrieff JB, Popa M, Steinbacher M, Jordan A, Scheck TJ, Brenninkmeijer CA, Wofsy SC, Kort EA, *Inverse modeling estimates of N₂O surface emissions and stratospheric losses using a global dataset*, AGU Fall Meeting, San Francisco, CA, 2010.
- Smith K, Atlas EL, Zhu X, Pope L, Lueb R, Miller BR, Moore FL, Montzka SA, Elkins JW, Nance D, Sweeney C, Wofsy SC, Daube BC, Kort EA, Jimenez R, Pittman JV, Hendershot R, Romashkin P, *Trace gas distributions and relationships in the remote atmosphere: Results from the HIAPER Pole to Pole Observations (HIPPO) flights*, AGU Fall Meeting, San Francisco, CA, 2010.
- Perring AE, Spackman JR, Schwarz JP, Watts L, Gao R, Brock CA, Commane R, Daube BC, Frost GJ, Holloway JS, Kort EA, Peischl J, Pollack IB, Ryerson TB, Santoni GW, Stark H, Trainer M, Wofsy SC, Xiang B, Fahey DW, *Aircraft observations of refractory black carbon during CalNex 2010*, AGU Fall meeting, San Francisco, 2010.
- Ishijima K, Kort EA, Crotwell AM, Dlugokencky EJ, Patra PK, Tans PP, Wofsy SC, *Latitudinal gradient of nitrous oxide: inferring source distribution from global measurements and model*, AGU Fall meeting, San Francisco, 2010.
- Kort EA, *Regional to global scale inversions on non-CO₂ greenhouse gases*, TRANSCOM, LBNL, Berkeley, CA, 2010.
- Kort EA, Miller S, Havice T, Sweeney C, Andrews AE, Dlugokencky EJ, Tans PP, Hirsch A, Worth D, Eluszkiewicz J, Nehrkorn T, Michalak AM, Tian H, Wofsy SC, *Spatial and Temporal Distributions of Methane and Nitrous Oxide Emissions in North America*, NASA Terrestrial Ecology Science Team Meeting, La Jolla, CA, 2010. (poster)
- Kort EA, Sweeney C, Andrews AE, Dlugokencky EJ, Tans PP, Hirsch A, Eluszkiewicz J, Nehrkorn T, Michalak AM, Wofsy SC, *Do aircraft-based atmospheric observations indicate that anthropogenic methane emissions in the United States are larger than reported?*, AGU Fall Meeting, San Francisco, CA, 2009. (poster)
- Pickett-Heaps C, Jacob DJ, Wecht K, Drevet J, Diskin GS, Wofsy S, Worthy D, Kort EA, Jimenez R, Daube B, Park S, *New estimate of methane emissions from the Hudson Bay Lowlands using aircraft observations from the ARCTAS and Pre-HIPPO airborne campaigns*, AGU Fall Meeting, San Francisco, CA, 2009.
- Atlas E, Lueb R, Zhu X, Pope L, Pan L, Schauffler S, Tilmes S, Hall B, Weinheimer A, Flocke F, Pollack I, Zheng W, Montzka D, Knapp D, Campos T, Hendershot R, Moore F, Hurst D, Elkins J, Gao R, Wofsy S, Daube B, Jimenez R, Park S, Kort E, Bowman KP, *Trace gas distributions and correlations observed during START08*, AGU Fall Meeting, San Francisco, CA, 2009.

Kort EA, Daube BC, Wofsy SC, Andrews A, Hirsch A, Sweeney C, Dlugokencky E, Miller J, Tans P, Eluszkiewicz J, Nehrkorn T, Michalak A, Stephens B, Gerbig C, Kaplan J, Houweling S, *Atmospheric constraints on emissions of methane and nitrous oxide in North America from atmospheric measurements and a receptor-oriented modeling framework*, NCGG5, Wageningen, The Netherlands, 2009.

Wofsy S, Daube B, Jimenez R, Park S, Kort E, *Measurements of atmospheric CO₂, CH₄, CO and N₂O from the HIAPER GV aircraft in April-June 2008*, AGU Fall Meeting, San Francisco, CA, 2008.

Kort EA, *Methane and Nitrous Oxide in North America: Using an LPDM to Constrain Emissions*, Non-CO₂ Greenhouse Gas Synthesis Workshop, Boulder, CO, 2008.

*Kort EA, Eluszkiewicz J, Stephens BB, Miller JB, Gerbig C, Nehrkorn T, Daube BC, Kaplan JO, Houweling S, Wofsy SC, *Atmospheric constraints on emissions of Methane and Nitrous Oxide in North America*, Ameriflux, Boulder, CO, 2008.