

Curriculum Vitae for David B. Lobell

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Professional Appointments:

2013 - Present Associate Professor, Environmental Earth System Science
Department (EESS), Stanford University
Senior Fellow, Center on Food Security and the Environment
(FSE), Woods Institute for the Environment and Freeman Spogli
Institute for International Studies, Stanford University

2009 – 2013 Assistant Professor (EESS) and Center Fellow (FSE), Stanford

2008 – 2009 Senior Research Scholar, FSE, Stanford

2005 – 2007 Lawrence Postdoctoral Fellow, Lawrence Livermore National
Laboratory

Education:

2005 Ph.D. Stanford University,
Department of Geological and Environmental Sciences
Dissertation: “A remote sensing approach to understand controls
on cropland productivity”

2000 Sc.B. Brown University
Department of Applied Mathematics, Magna Cum Laude

Post-Degree Awards and Honors:

Macarthur Fellow, 2014-2018
Sir Frederick McMaster Fellowship, CSIRO, Australia, 2014
Terman Fellow, Stanford University, 2011-2014
Google Science Communication Fellow, 2011
James B. Macelwane Medal, American Geophysical Union, 2010
Fellow, American Geophysical Union, 2010
NASA New Investigator Program Award, 2008-2010
Lawrence Fellowship, Lawrence Livermore National Laboratory, 2005-2008

Teaching Experience:

Courses Taught at Stanford University.
EESS / EARTHSYST 211: “Fundamentals of Modeling” 2009-2016
EARTHSYST 184: “Feeding Nine Billion” 2013-2016
EESS / EARTHSYST 184/284: “Climate and Agriculture” 2008, 2010, 2012
EESS 260: “Advanced Statistical Methods for Earth System Science” 2012
EESS 318: “Global Land Use to 2050” 2012

Professional Activities and Service

Lead Author, Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report,
Chapter 7 of the Working Group II, “Food Production Systems and Food Security”,
2010-2014. Also member of core writing team for “Summary for Policy Makers” and
contributing author for Ch. 18 on “Detection and Attribution of Observed Impacts”
Member of National Academy of Sciences Committee on Stabilization Targets for Atmospheric
Greenhouse Gas Concentrations (August 2009-May 2010) and Assessing the Impact of
Climate Change on Political and Social Stresses (Sep 2011-Sep 2012)
Member of Technical Advisory and Review Panel for World Bank Group activities related to
climate change adaptation, 2012

9/21/2016

Editor, *Global Change Biology*, 2011-present
Editorial Advisory Board Member, *Global Food Security*, 2012-present
Editorial Board Member, *Environmental Research Letters*, 2009-2013
Associate Editor, *Journal of Environmental Quality*, 2008 – 2010
Co-organized and Led Meeting of 20 International Scientists on “Adapting Agriculture to Climate Change: The Role of Crop Wild Relatives” in Bellagio, Italy in September, 2010
Organized and Led Meeting of 17 International Scientists on “Climate extremes and crop adaptation” at Stanford in June, 2009
Edited special issue of *J Environmental Quality* on “Remote Sensing of Soil Degradation”
National Academy of Sciences Panel on Climate, Energy, and Security (May-June 2008)
National Academy of Sciences Workshop on Remote Sensing for Human Welfare (January 2006)
NASA Land Cover Land Use Change Grant Review Panel, September 2005
Reviewer for over 25 scientific journals, including *Science*, *Nature* and *PNAS*
Numerous invited talks at corporations and business conferences on climate change adaptation
Numerous public lectures throughout the Bay Area on climate change and food

Books:

Lobell, D.B. and Burke, M.B. (eds.) 2010. *Climate Change and Food Security*. Springer.
<http://www.springerlink.com/content/978-90-481-2952-2>

Peer Reviewed Journal Publications (*indicates first author was a student or post-doc):

- *Azzari, G., Jain, M., Lobell D.B. (in review). Toward Fine Resolution Global Maps of Crop Yields: Testing Multiple Methods and Sensors in Three Countries. *Remote Sensing of the Environment*.
- *Azzari, G., Lobell D.B. (in review). Land Cover Maps On-demand: Landsat-based Classification in The Era of Cloud Computing. *Remote Sensing of the Environment*
- Lobell, D.B. and Azzari, G. (in review) Satellite detection of rising crop yield heterogeneity in the U.S. Midwest, *ERL*.
- *Seifert, C., Roberts, M., and Lobell, D.B. (in revision) Continuous Corn and Soybean Yield Penalties Across Hundreds of Thousands of Fields, *Agronomy Journal*
- *Jain, M, Lobell, D.B. (in press) Mapping Smallholder Wheat Yields and Sowing Dates Using Microsatellite Data, *Remote Sensing*,
- *Guan, K., Sultan, B., Biasutti, M., Baron, C., & Lobell, D. B. (2017). Assessing climate adaptation options and uncertainties for cereal systems in West Africa. *Agricultural and Forest Meteorology*, 232, 291–305. doi:10.1016/j.agrformet.2016.07.021
- Liu, Asseng, Muller, Ewert, Elliott, Lobell et al. (2016) Similar negative impacts of temperature on global wheat yield estimated by three independent methods, *Nature Climate Change*. doi:10.1038/nclimate3115
- *Jean, N., Burke, M., Xie, M., Davis, W. M., Lobell, D. B., & Ermon, S. (2016). Combining satellite imagery and machine learning to predict poverty. *Science*, 353(6301), 790–794.
- Potgieter, A. B., Lobell, D. B., Hammer, G. L., Jordan, D. R., Davis, P., & Brider, J. (2016). Yield trends under varying environmental conditions for sorghum and wheat across Australia. *Agricultural and Forest Meteorology*, 228, 276–285.
- *Zhao, Y., Chen, X., & Lobell, D. B. (2016). An approach to understanding persistent yield variation—A case study in North China Plain. *European Journal of Agronomy*, 77, 10-19.
- Farmaha, B. S., Lobell, D. B., Boone, K. E., Cassman, K. G., Yang, H. S., & Grassini, P. (2016). Contribution of persistent factors to yield gaps in high-yield irrigated maize. *Field Crops Research*, 186, 124-132.
- Gustafson D, Hayes M, Janssen E, Lobell DB, Long S, Nelson GC, Pakrasi HB, Raven P, Robertson GP, Robertson R, Wuebbles D. (2016). Pharaoh's Dream Revisited: An Integrated US Midwest Field Research Network for Climate Adaptation. *BioScience*, 66(1), 80-85.
- *Meng, Q., Chen, X., Lobell, D. B., Cui, Z., Zhang, Y., Yang, H., & Zhang, F. (2016). Growing sensitivity of maize to water scarcity under climate change. *Scientific reports*, 6.
- *Ravi, S., Macknick, J., Lobell, D., & Field, C. (2016). Colocation opportunities for large solar infrastructures and agriculture in drylands. *Applied Energy*. 165, 383-392
- *Xie, M., Jean, N., Burke, M., Lobell, D., & Ermon, S. (2015). Transfer Learning from Deep Features for Remote Sensing and Poverty Mapping. *arXiv Preprint arXiv: <http://arxiv.org/abs/1510.00098>*

- *Guan, K., Berry, J. A., Zhang, Y., Joiner, J., Guanter, L., Badgley, G., & Lobell, D. B. (2015). Improving the monitoring of crop productivity using spaceborne solar-induced fluorescence. *Global change biology*.doi: 10.1111/gcb.13136, 22 716-726
- Tebaldi, C., & Lobell, D. (2015). Estimated impacts of emission reductions on wheat and maize crops. *Climatic Change*. Retrieved from <http://link.springer.com/article/10.1007/s10584-015-1537-5>
- Burke, M., Dykema, J., Lobell, D., Miguel, E., Satyanath, S. (2015). Incorporating climate uncertainty into estimates of climate change impacts. *Review of Economics*
- *Guan K, Sultan B, Biasutti M, Baron C, Lobell DB (2015) What aspects of future rainfall changes matter for crop yields in West Africa? *Geophysical Research Letters*.
- *Zhao Y, Chen X, Cui Z, Lobell DB (2015) Using satellite remote sensing to understand maize yield gaps in the North China Plain. *Field Crops Research*, 183, 31–42.
- Lobell DB, Hammer GL, Chenu K, Zheng B, McLean G, Chapman SC (2015) The shifting influence of drought and heat stress for crops in northeast Australia. *Global change biology*. doi: 10.1111/gcb.13022
- Lobell DB, Thau D, Seifert C, Engle E, Little B (2015) A scalable satellite-based crop yield mapper. *Remote Sensing of Environment*. 164: 324-333.
- *Urban D, Sheffield J, Lobell D. 2015. The impacts of future climate and carbon dioxide changes on the average and variability of US maize yields under two emission scenarios. *Environmental Research Letters*. 10 045003
- *Seifert CA, Lobell DB. 2015. Response of double cropping suitability to climate change in the United States. *Environmental Research Letters*, 10, 024002.
- *Moore, F.C., Lobell, D.B., 2015. The fingerprint of climate trends on European crop yields. *Proc. Natl. Acad. Sci. U. S. A.* 112, 2670–2675. doi:10.1073/pnas.1409606112
- *Urban, D.W., Roberts, M.J., Schlenker, W., Lobell, D.B., 2015. The effects of extremely wet planting conditions on maize and soybean yields. *Clim. Change* 1–14.
- *Gourdji, S., Läderach, P., Valle, A.M., Martinez, C.Z., Lobell, D.B., 2015. Historical climate trends, deforestation, and maize and bean yields in Nicaragua. *Agric. For. Meteorol.* 200, 270–281.
- Verón, S.R., de Aballeyra, D., Lobell, D.B., 2015. Impacts of precipitation and temperature on crop yields in the Pampas. *Clim. Change* 1–11.
- Asseng, S., Ewert, F., Martre, P., Rötter, R.P., Lobell, D.B., et al., 2015. Rising temperatures reduce global wheat production. *Nat. Clim. Chang.* 5, 143–147, doi:10.1038/nclimate2470
- Porter, J.R., Xie, L., Challinor, A.J., Cochran, K., Howden, S.M., Iqbal, M.M., Lobell, D.B., Travasso, M.I., 2014. Chapter 7: Food Security and Food Production Systems. IPCC Working Group 2 Report.
- Sultan, B., *Guan, K., Kouressy, M., Biasutti, M., Piani, C., Hammer, G.L., McLean, G., Lobell, D.B., 2014. Robust features of future climate change impacts on sorghum yields in West Africa. *Environ. Res. Lett.* 9, 104006.
- Lobell, D.B., 2014. Climate change adaptation in crop production: Beware of illusions. *Global Food Security*. 3: 72-76
- Lobell, D.B. and Tebaldi, C., 2014. Getting caught with our plants down: the risks of a global crop yield slowdown from climate trends in the next two decades. *Environmental Research Letters*, 9(7): 074003.
- *Moore, F.C. and Lobell, D.B., 2014. Adaptation potential of European agriculture in response to climate change. *Nature Climate Change*. 4(7) 610-614
- Lobell, D.B., Roberts, M.J., Schlenker, W., Braun, N., Little, B.B., Rejesus, R.M. and Hammer, G.L., 2014. Greater Sensitivity to Drought Accompanies Maize Yield Increase in the U.S. Midwest. *Science*, 344(6183): 516-519.
- *Ravi, S., Lobell, D.B. and Field, C.B., 2014. Tradeoffs and Synergies between Biofuel Production and Large Solar Infrastructure in Deserts. *Environmental science & technology*, 48(5): 3021-3030.
- Hertel TW, Lobell DB. 2014. Agricultural adaptation to climate change in rich and poor countries: Current modeling practice and potential for empirical contributions. *Energy Economics*.
- Challinor, A.J., Watson, J., Lobell, D.B., Howden, S.M., Smith, D.R. and Chhetri, N., 2014. A meta-analysis of crop yield under climate change and adaptation. *Nature Clim. Change*, 4(4): 287-291.
- * Sibley, A., P. Grassini, N. Thomas. K. Cassman, and D.B. Lobell. 2014. Testing remote sensing approaches for assessing yield variability among maize fields, *Agronomy Journal*, 106: 24-32
- *Meng Q, Hou P, Lobell D.B, Wang H, Cui Z, Zhang F, Chen X. 2013. The benefits of recent warming for maize production in high latitude China. *Climatic Change*. Doi: 10.1007/s10584-013-1009-8
- Stone, D., Auffhammer, M., Carey, M., Hansen, G., Huggel, C., Cramer, W., Lobell, D., Molau, U., Solow, A., Tibig, L. and Yohe, G., 2013. The challenge to detect and attribute effects of climate change on human and natural systems. *Climatic Change*: 1-15.

- Saba, A., Biasutti, M., Gerrard, M. B., & Lobell, D. B. 2013. Getting Ahead of the Curve: Supporting Adaptation to Long-term Climate Change and Short-term Climate Variability Alike. *Carbon and Climate Law Review*, 7(1), 3–23.
- Campbell, J.E., Lobell, D.B., Genova, R.C., Zumkehr, A. and Field, C.B., 2013. Seasonal energy storage using bioenergy production from abandoned croplands. *Environmental Research Letters*, 8(3): 035012.
- *Gourdji, S.M., Sibley, A.M. and Lobell, D.B., 2013. Global crop exposure to critical high temperatures in the reproductive period: historical trends and future projections. *Environmental Research Letters*, 8(2): 024041.
- *McGrath, J.M. and Lobell, D.B., 2013. Regional disparities in the CO₂ fertilization effect and implications for crop yields. *Environmental Research Letters*, 8(1): 014054.
- Schlenker, W., Roberts, M.J. and Lobell, D.B., 2013. US maize adaptability. *Nature Climate Change*, 3(8): 690-691.
- Lobell, D.B., G.L. Hammer, G. McLean, C. Messina, M.J. Roberts, and W. Schlenker. 2013. The critical role of extreme heat for maize production in the United States, *Nature Climate Change*, DOI: 10.1038/NCLIMATE1832.
- * Georgescu, M., Lobell, D.B., Field, C.B., & Mahalov, A. (2013). Simulated hydroclimatic impacts of projected Brazilian sugarcane expansion. *Geophysical Research Letters*, 40, 1–6.
- Lobell, D.B., U. Baldos, and T.W. Hertel. 2013. Climate adaptation as mitigation: the case of agricultural investments, *Environmental Research Letters*, 8 015012 doi:10.1088/1748-9326/8/1/015012
- * Gourdji, S.M., K. Matthews, M. Reynolds, J. Cross, and D.B. Lobell. 2013. An assessment of wheat yield sensitivity and breeding gains in hot environments, *Proceedings of the Royal Society B: Biological Sciences*, 280: 1752.
- Lobell, D.B., 2013. The use of satellite data for crop yield gap analysis. *Field Crops Research*, 143, 56-64
- Lobell, D.B., Ortiz-Monasterio, J.I., Sibley, A.M., & Sohu, V.S. 2013. Satellite detection of earlier wheat sowing in India and implications for yield trends. *Agricultural Systems*, 115, 137-143
- Lobell, D.B. 2013. Errors in climate datasets and their effects on statistical crop models. *Agricultural and Forest Meteorology*, 170, 58-66
- Lobell, D.B., and Gourdji, S.M., 2012. The influence of climate change on global crop productivity, *Plant Physiology*, 160: 1686-1697.
- * McGrath, J.M., & Lobell, D.B. 2012. Reduction of transpiration and altered nutrient allocation contribute to nutrient decline of crops grown in elevated CO₂ concentrations. *Plant, Cell & Environment*, in press.
- * Urban, D., Roberts, M., Schlenker, W. and Lobell, D., 2012. Projected temperature changes indicate significant increase in interannual variability of U.S. maize yields. *Climatic Change*, 112(2): 525-533.
- Lobell, D.B., Sibley, A. and Ivan Ortiz-Monasterio, J., 2012. Extreme heat effects on wheat senescence in India. *Nature Clim. Change*, advance online publication. DOI: 10.1038/NCLIMATE1356
- *Pongratz, J., Lobell, D.B., Cao, L. and Caldeira, K., 2012. Crop yields in a geoengineered climate. *Nature Clim. Change*, 2(2): 101-105.
- *Maltais-Landry, G. and Lobell, D.B., 2012. Evaluating the Contribution of Weather to Maize and Wheat Yield Trends in 12 US Counties. *Agronomy journal*, 104(2): 301.
- Lobell, D. and Field, C., 2012. California perennial crops in a changing climate. *Climatic Change*, 109: 317-333.
- Lobell, D., Torney, A. and Field, C., 2012. Climate extremes in California agriculture. *Climatic Change*, 109: 355-363.
- Lobell, D.B., W.S. Schlenker, and J. Costa-Roberts. 2011. Climate trends and global crop production since 1980. *Science*, doi:10.1126/science.1204531.
- Lobell, D.B., Banziger, M., Magorokosho, C. and Vivek, B., 2011. Nonlinear heat effects on African maize as evidenced by historical yield trials. *Nature Clim. Change*, 1(1): 42-45.
- * Loarie, S.R., Lobell, D.B., Asner, G.P., Mu, Q. and Field, C.B., 2011. Direct impacts on local climate of sugar-cane expansion in Brazil. *Nature Clim. Change*, 1(2): 105-109.
- *Nicholas, K.A., Matthews, M.A., Lobell, D.B., Willits, N.H. and Field, C.B., 2011. Effect of vineyard-scale climate variability on Pinot noir phenolic composition. *Agricultural and Forest Meteorology*, 151(12): 1556-1567.
- Ahmed, S.A. et al., 2011. Climate volatility and poverty vulnerability in Tanzania. *Global Environmental Change*, 21(1): 46-55.
- Rowhani, P., Lobell, D. B., Linderman, M. & Ramankutty, N. 2011. Climate variability and crop production in Tanzania. *Agricultural and Forest Meteorology* 10.1016/j.agrformet.2010.12.002.

- *McGrath, J.M., and D.B. Lobell. 2011. An independent method for deriving the carbon fertilization effect using historical yield data from wet and dry years. *Global Change Biology*, doi: 10.1111/j.1365-2486.2011.02406.x.
- * Georgescu, M., Lobell, D.B. and Field, C.B., 2011. Direct climate effects of perennial bioenergy crops in the United States. *Proceedings of the National Academy of Sciences*, 108(11): 4307-4312.
- * Seifert, C., Ortiz-Monasterio, J.I. and Lobell, D.B., 2011. Satellite-Based Detection of Salinity and Sodicity Impacts on Wheat Production in the Mexicali Valley. *Soil Science Society of America Journal*, 75(2): 699.
- * Loarie, S.R., Lobell, D.B., Asner, G.P. and Field, C.B., 2011. Land-Cover and Surface Water Change Drive Large Albedo Increases in South America. *Earth Interactions*, 15(7): 1-16.
- Ebi, K.L., D.B. Lobell, and C.B. Field. 2010. Climate change impacts on food security and nutrition, *United Nations' SCN News*, 38: 11-17.
- *Burney, J.A., Davis, S.J. and Lobell, D.B., 2010. Greenhouse gas mitigation by agricultural intensification. *Proceedings of the National Academy of Sciences*, 107(26): 12052.
- Lobell, D.B., Ortiz-Monasterio, J.I. and Lee, A.S., 2010. Satellite evidence for yield growth opportunities in Northwest India. *Field Crops Research*, 118: 13-20.
- Hertel, T., M.B. Burke and D.B. Lobell, 2010. The poverty implications of climate-induced crop yield changes by 2030. *Global Environmental Change*, 20(4): 577-585.
- Lobell, D.B. and M.B. Burke. 2010. On the use of statistical models to predict crop yield responses to climate change. *Agricultural and Forest Meteorology*, 150 (11): 1443-1452.
- Schlenker W and Lobell DB. 2010. Robust negative impacts of climate change on African agriculture. *Environmental Research Letters*: 014010 (8pp)
- *Ahrens, T.D., D.B. Lobell, J.I. Ortiz-Monasterio, Y. Li, P.A. Matson. 2010. Narrowing the agronomic yield gap with improved nitrogen use efficiency: a modeling approach. *Ecological Applications*. 20(1): 91-100.
- *Georgescu, M., D. B. Lobell, and C. B. Field. 2009, Potential impact of U.S. biofuels on regional climate, *Geophys. Res. Lett.*, 36, L21806, doi: 10.1029/2009GL040477.
- Lobell, D.B. 2009. Remote Sensing of Soil Degradation: Introduction. *J. Environ. Qual.* 39:1-4.
- Lobell, D.B., S.M. Lesch, D.L. Corwin, M.G. Ulmer, K.A. Anderson, D.J. Potts, J.A. Doolittle, M.R. Matos, and M.J. Baltes. 2009. Regional-scale Assessment of Soil Salinity in the Red River Valley Using Multi-year MODIS EVI and NDVI. *J. Environ. Qual.* 39:35-41.
- Burke, M.B., E. Miguel, S. Satyanath, J.A. Dykema, and D.B. Lobell. 2009. Warming increases the risk of civil war in Africa. *Proceedings of the National Academy of Sciences* 106:20670.
- Burke MB, Lobell DB and Guarino L 2009 Shifts in African crop climates by 2050, and the implications for crop improvement and genetic resources conservation *Global Environmental Change*: 19, 317-325.
- Lobell D.B., K.G. Cassman, and C.B. Field. 2009. Crop Yield Gaps: Their Importance, Magnitudes, and Causes. *Annual Review of Environment and Resources*, 34:4.1-4.26.
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- Lobell, D.B., G. Bala, A. Mirin, T. Phillips, R. Maxwell, D. Rotman. 2009, Regional differences in the influence of irrigation on climate, *J Climate*. 22:2248-2255.
- Lobell, D.B., and M.B. Burke. 2008. Why are agricultural impacts of climate change so uncertain? The importance of temperature relative to precipitation. *Environmental Research Letters* 3:034007.
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- Lobell, D.B., M.B. Burke, C. Tebaldi, M.M. Mastrandrea, W.P. Falcon, and R.L. Naylor. 2008. Prioritizing climate change adaptation needs for food security in 2030. *Science*, 319:607-610. DOI: 10.1126/science.1152339
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- Lobell, D. B., C. J. Bonfils, L. M. Kueppers, and M. A. Snyder. 2008, Irrigation cooling effect on temperature and heat index extremes, *Geophys. Res. Lett.*, 35, L09705, doi:10.1029/2008GL034145.
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- Bonfils, C., P. Duffy, B. Santer, T. Wigley, D. Lobell, T. Phillips, and C. Doutriaux. 2008. Identification of external influences on temperatures in California. *Clim. Change*:10.1007/s10584-007-9374-9.
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- Field, C.B., D.B. Lobell, H.A. Peters, and N.R. Chiariello. 2007. Feedbacks of Terrestrial Ecosystems to Climate Change. *Annual Review of Environment and Resources*, 32: 7.1-7.29.
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Book Chapters:

- Lobell, D.B., Naylor, R.L., Field, C.B., 2014. Food, Energy, and Climate Connections in a Global Economy. In the *Evolving Sphere of Food Security* (Naylor, ed.)
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- Corwin, D. L., S.M. Lesch, and D.B. Lobell. 2009. Chapter 10 - Laboratory and field measurements of salinity. In: Tanji, K.K. (ed.) *Agricultural Salinity Assessment and Management*, 2nd edition.
- Asner, G.P., J.A. Hicke, and D.B. Lobell. 2003. Per-pixel analysis of forest structure: Vegetation indices, spectral mixture analysis and canopy reflectance modeling. In M. Wulder and S.E. Franklin (eds.), *Methods and Applications for Remote Sensing of Forests: Concepts and Case Studies*. Kluwer Academic Publishers, New York.

Conference Proceedings:

- Lobell, D.B. and J.I. Ortiz-Monasterio. Mapping Soil Salinity in the Colorado River Delta Region: Scaling From Point to Regional Scales With Multi-Year Satellite Imagery. *International Salinity Forum*, Riverside, CA, 2005.
- Lobell, D.B. and G.P. Asner. Hyperion studies of crop stress in Mexico. *Proceedings of the AVIRIS Workshop*, NASA Jet Propulsion Laboratory, Pasadena, CA, 2003.

Selected Recent Invited Talks (* = keynote address)

- *September 2016. CIMMYT 50th year anniversary, Mexico City. “A golden age of remote sensing: Possibilities and pitfalls for agricultural systems research”
- May 2016. University of Nebraska, “Opportunities to build intensive, resilient agro-ecosystems”
- April 2016. Moore Foundation Workshop on Critical Barriers to Progress in Sustainability Science, Irvine, CA “Data and methods gaps in sustainability research.”
- Mar 2016 CGIAR Standing Panel on Impact Assessment, Washington DC, “Remote sensing for impact assessment at CGIAR”
- January 2016 Data Science Seminar Series, Stanford CA, “Strength in numbers: using data to improve food security”
- December 2015 invited talk at Program on Integrated Assessment Model Development, Diagnostics and Intercomparison (PIAMDDI) workshop on climate impact methods. “Do different methods predict different yield responses to climate change?”
- November, 2015 invited talk at American Society of Agronomy “Assessing Options to Reduce the Impacts of Extreme Heat in Agriculture”
- *November, 2015: keynote lecture at a USDA conference on “Regional Approaches to Climate Change”, “Transitioning Cereal Systems to Adapt to Climate Change.”
- *July, 2015 Keynote address at the International Section annual meeting of the Agricultural and Applied Economics Association (AAEA) in San Francisco. “Re-thinking Climate Adaptation”
- July 8-9, 2015: two invited talks at the Our Common Future Under Climate Change conference in Paris, France, on “Agricultural adaptation to climate change in rich and poor countries” and “Assessing climate impacts and adaptation options for cereal systems in West Africa,” hosted by the International Council for Science (ICSU), Future Earth and UNESCO.
- June 2015. United Nations Food and Agriculture Organization in Rome, Italy “Mapping crop yields and area using Google Earth Engine and a Scalable Satellite-based Crop Yield Mapper”
- June, 2015: lecture at Planet Labs in San Francisco, CA “Using high spatial and temporal resolution imagery for food security research”
- June 2015 University of California Center for Global Action’s conference on “Technologies for Crisis Response and Resilience”, “Assessing Impact in Agriculture at Ultra Low Cost”
- *May 28, 2015. UC Davis Khush Symposium on Plant Breeding for Food Security “Food, climate, and technology”
- May 20, 2015: International Center for Tropical Agriculture (CIAT). seminar (via Skype) “Using crop models to inform breeding: examples from Australia”
- April 2015, invited talk at Center for Effective Global Action at Google, San Francisco “Assessing Impacts in Agriculture at Ultra-low Costs”

March 2015 U Maryland GeoGLAM meeting, “A scalable satellite-based crop yield mapper: Integrating satellites and crop models for field-scale estimation”

January 2015 Stanford Data Science Initiative, “From bytes to bites: How data science might help feed the world”

“Satellite-based crop yield mapping at the field scale: recent progress and testing” Fall AGU Meeting, San Francisco, December 2014

“How Earth Engine and Skybox can help on food security and deforestation” Google, Mountain View, CA, December 2014

“Climate adaptation challenges and priorities in African agriculture” Rockefeller Foundation, NY, October 2014

“Meeting the climate adaptation challenge in Midwest agriculture” Washington University, September 2014 (keynote)

“Understanding crop yields: Potential contributions from microsatellites in the next 5-10 years” UC Berkeley, August 2014

“Meeting the climate adaptation challenge in agriculture” USGS Menlo Park, August 2014

“Assessing the true scope for raising crop yields by reducing yield gaps” Univ Queensland, June 2014

“Some gaps in crop models that matter for adaptation studies” U Melbourne, May 2014

“The search for climate-adaptive crop traits” Queensland Alliance for Agriculture and Food Initiative, May 2014

*“Aussie Rules Agriculture” Australia National University, Symposium on Food and Environmental Security, Canberra, Australia, April 2014.

“Can satellites help to close crop yield gaps?” CSIRO, Canberra, Australia, April 2014.

“Feeding Nine Billion” Monash University, Melbourne, Australia, April 2014.

“Scalable yield gap analysis” CIMMYT workshop on Remote Sensing: Beyond Images. Mexico City, December 2013.

“Feeding Nine Billion in a Hotter World” Distinguished Scholar Seminar Series, Florida Climate Institute, University of Florida, November 2013.

“Food Production and Food Security under Global Change: What do the data show?” Annual Meeting of the American Society of Plant Biologists, Providence, July 2013.

*“What aspects of climate change really matter for agriculture, and vice versa?” Community Earth System Model (CESM) Workshop, Breckenridge, June 2013.

*“(How) Should climate trends affect decisions in agricultural development?” Association for International Agriculture and Rural Development (AIARD) Annual Conference. Washington, D.C. June 2013.

“Why heat hurts hunger (and what to do about it)” Brown University Geology Colloquium, April 2013

“Heat, hunger, and the next generation of crops” Arizona State Sustainability Colloquium, March 2013

“Direct Impacts of climate change on crops” Monsanto Climate Science Symposium, St. Louis, February 2013

“Impacts of climate change on agriculture and opportunities for detection and attribution.” Banff International Research Station Workshop on Frontiers in the Detection and Attribution of Climate. Banff, Alberta, Canada May 2012.

*“(How) should climate change alter investment in agriculture and natural resource management? FAO - World Bank meeting on Investing in agriculture and natural resources management in the context of climate change in East Asia and the Pacific Bangkok, Thailand, May 2012 (by video)

“Climate Change and Agricultural Adaptation” Global Food Policy and Food Security Symposium Series, Stanford, CA, Dec. 2011

*“Food Security and Climate Change: What do we really need to know?” NCCR Climate Summer School, Grindelwald, Switzerland, Sep 2011

“Climate trends and crop production” China Agricultural University, Sept 2011

“How satellites can and can't be useful for yield gap analysis” Yield Gap Assessment Workshop, China Agricultural University, Sept 2011

“Implications of climate change for agriculture and commodity markets” Climate Change Impacts and Integrated Assessment (CCI/IA) Workshop, Snowmass, CO July 2011

“Climate change: risks and vulnerabilities” National Academy of Sciences Meeting on Exploring Sustainable Solutions for Increasing Global Food Supplies, Washington, DC. May 2011

“Agricultural applications of multi-year remote sensing” 15th Annual NASA LCLUC Science Team Meeting. Maryland, March 2011

*“Corn yields and climate: their inseparable futures.” National Corn Grower’s Association Annual Meeting, August 2010

“Applying new satellite technologies to improve productivity in wheat.” Punjab Agricultural University, March 2010

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