Curriculum Vitae

YUFANG JIN
Department of Land, Air, and Water Resources
University of California, One Shields Ave
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Academic Appointments

2014 –	Assistant Professor in Remote Sensing and Ecosystem Change Department of Land, Air and Water Resources University of California, Davis, CA
2005 –2014	Assistant and Associate Research Scientist Department of Earth System Science University of California, Irvine, CA (Also affiliated with UCLA, 2008 – 2011)
2003 – 2005	Assistant Research Scientist, Department of Geography University of Maryland, College Park, MD
2002 – 2003	Postdoctoral Research Associate, Department of Geography Boston University, Boston, MA

Education

2002	Ph.D. in Geography	Boston University, Boston, MA
1998	M.S. in Environmental Science	Peking University, Beijing, P. R. China
1995	B.S. in Atmospheric Physics	Peking University, Beijing, P. R. China

Research Interests

Remote sensing of terrestrial ecosystems, wildland fire disturbances, climate and vegetation interactions, ecohydrology, biogeochemical cycles, Geographic Information System

Research Grants

2010 – 2014	NASA Interdisciplinary Science, "Fires in Southern California: Interactions Between Climate Change, Ecosystems, and Humans", Y. Jin (PI), Co-PIs: J. Randerson and M. Goulden, A. Hall, Q. Li, and S. Hook, $1.7 Million.
2008 – 2011	NASA New Investigator Program, "Fire-induced Changes in Albedo and the Associated Radiative Forcing: a Comparison of Boreal Canada and Australia Tropical Savannas", Y. Jin (PI), $324K.
2008 – 2011	NASA Carbon Cycle, "Quantifying Changes in Northern High Latitude Ecosystems and Associated Feedbacks to the Climate System". Y. Jin (Co-I) with S. Goetz (PI).
2008 – 2011	NASA Earth System Research Science, "Fire-emissions Derived from Aqua and Terra Satellites", Y. Jin (Co-I) with J. Randerson (PI), $337K to UCI.
2006 – 2010	NSF, "Fire at the Intersection of Global Carbon and Water Cycles", Y. Jin (Co-I) with J. Randerson (PI), $598K to UCI.

Teaching Experience

Fall 2010 Lecturer, "Satellite remote sensing of environment and digital image processing", UCI graduate-level course (ESS280A, 4 credit hours, lecture and computer lab)

Fall 2004 Co-lecturer, "Advances in remote sensing of terrestrial global change: past, present and future", University of Maryland, graduate-level course

Spring 2004 Guest lecturer, "Land use and land cover change", University of Maryland, graduate-level course

Honors and Awards

2008 NASA New Investigator Program in Earth Science Award
2006 The 2nd International Young Scientists' Conference award on Global Change
1995 – 1996 Guanghua Scholarship for Outstanding Graduate Students, Peking University
1991 – 1993 Excellent Student Honor, Peking University

Peer Reviewed Publications (Google Scholar Citations: 3523, h-index 19, i10-index 22, as of December 1st, 2014) http://scholar.google.com/citations?user=a1SxHDkAAAAJ

32. Faivre, N., **Y. Jin**, M. L. Goulden, and J. T. Randerson (2014), Controls on the spatial pattern of wildfire ignitions in Southern Californian, *International Journal of Wildland Fire*, doi:10.1071/WF13136.

31. Lin, H.-w., J. L. McCarty, D. Wang, B. M. Rogers, D. C. Morton, G. J. Collatz, **Y. Jin**, and J. T. Randerson (2014), Management and climate contributions to satellite-derived active fire trends in the contiguous United States, *Journal of Geophysical Research-Biogeoscience*, 119, 645-660, doi: 10.1002/2013JG002382.

30. **Jin**, **Y.**, J. T. Randerson, S. Capps, A. Hall, N. Faivre, and M. L. Goulden (2014), Contrasting controls on wildland fires in Southern California during periods with and without Santa Ana events, *Journal of Geophysical Research-Biogeosciences*, doi: 10.1002/2013JG002541.

29. Veraverbeke, S., F. Sedano, S. J. Hook, J. T. Randerson, **Y. Jin**, and B. M. Rogers (2014), Mapping the daily progression of large wildland fires using MODIS active fire data, *International Journal of Wildland Fire*, doi: 10.1071/WF13015.

28. **Jin, Y**. and M. L. Goulden (2013), Ecological consequences of precipitation variation: separating short- vs. long-term effects using satellite data, *Global Ecology and Biogeography*, doi: 10.1111/geb.12135.

27. Chen, Y., D. C. Morton, **Y. Jin**, L. Giglio, G. J. Gollatz, P. S. Kasibhatla, G. R. van der Werf, R. S. DeFries, and J. T. Randerson (2013), Long-term trends and interannual variability of forest, savanna and agricultural fires in South America, *Carbon Management*, 4(6), 617-638, doi: 10.4155/cmt.13.61.

26. Loranty, M. M., L. T. Berner, S. J. Goetz, **Y. Jin**, and J. T. Randerson (2013), Vegetation controls on northern high latitude snow-albedo feedback, *Global Change Biology*, 20(2), 594-606, doi: 10.1111/gcb.12391.

25. **Jin, Y.**, J. T. Randerson, M. L. Goulden, and S. J. Goetz (2012), Post-fire changes in net shortwave radiation along a latitudinal gradient in boreal North America, *Geophysical Research Letters*, 39, L13403, doi:10.1029/2012GL051790.

24. **Jin, Y.**, J. T. Randerson, S. J. Goetz, P. S. A. Beck, M. M. Loranty, and M. L. Goulden (2012), The influence of burn severity on post-fire vegetation recovery and albedo change during early succession in North American boreal forests, *Journal of Geophysical Research-Biogeosciences*, 117, G01036, doi:10.1029/2011JG001886.

23. Anderson, R.G., **Y. Jin**, and M. L. Goulden (2012), Assessing regional evapotranspiration and water balance across a Mediterranean montane climate gradient, *Agricultural and Forest Meteorology*, 166-167, 10-22, doi:10.1016/j.agrformet.2012.07.004.

22. Lin, H.-w., **Y. Jin**, L. Giglio, J.A. Foley, and J.T. Randerson (2012), Evaluating greenhouse gas emissions reporting systems for agricultural waste burning using satellite observations of active fires, *Ecological Applications*, 22(4),1345-1364.

21. Chen, Y., J. T. Randerson, D. C. Morton, R. S. DeFries, G. J. Collatz, P. S. Kasibhatla, L. Giglio, **Y. Jin**, and M. E. Marlier (2011), Forecasting fire season severity in South America using Sea Surface Temperature Anomalies, *Science*, 334(6057), 787-791, doi: 10.1126/science.1209472.

20. **Jin, Y.**, J.T. Randerson, and M. L. Goulden (2011), Continental-scale net radiation and evapotranspiration estimated using MODIS satellite observations, *Remote Sensing of Environment*, 115(9), 2302-2319, doi: 10.1016/j.rse.2011.04.031.

19. Beck, P. S. A., S. J. Goetz, M.C. Mack, H.D. Alexander, **Y. Jin,** J. T. Randerson, and M. M. Loranty (2011), The impacts and implications of an intensifying fire regime on Alaskan boreal forest composition and albedo, *Global Change Biology*, 17, 2853–2866. doi: 10.1111/j.1365-2486.2011.02412.x

18. van Leeuwen, T.T., A.J. Frank, **Y. Jin**, P.J. Smyth, M.L. Goulden, G.R. van der Werf, and J.T. Randerson (2011), Optimal use of land surface temperature data to detect changes in tropical forest cover, *J. Geophysical Research-Biogeosciences*, 116, G02002, doi:10.1029/2010JG001488.

17. van der Werf, G.R., J.T. Randerson, L. Giglio, G.J. Collatz, M. Mu, P.S. Kasibhatla, D.C. Morton, R.S. DeFries, **Y. Jin**, and T.T. van Leeuwen (2010), Global fire emissions and the contribution of deforestation, savanna, forest, agricultural, and peat fires (1997–2009), *Atmospheric Chemistry and Physics*, 10, 1-28, doi:10.5194/acp-10-1-2010.

16. Lyons, E.A., **Y. Jin**, and J.T. Randerson (2008), Changes in surface albedo after fire in boreal forest ecosystems of interior Alaska assessed using MODIS satellite observations, *Journal of Geophysical Research-Biogeosciences*, vol. 113, G02012, doi:10.1029/2007JG000606.

15. Randerson, J. T., H. Liu, M.G. Flanner, S.D. Chambers, **Y. Jin**, P.G. Hess, G. Pfister, M.C. Mack, K.K. Treseder, L.R. Welp, F.S. Chapin, J.W. Harden, M.L. Goulden, E. Lyons, J.C. Neff, E.A.G. Schuur, and C.S. Zender (2006), The impact of boreal forest fire on climate warming, *Science*, 314(5802), 1130-1132, doi:10.1126/science.1132075.

14. Salomon, J., C. B. Schaaf, A. H. Strahler, F. Gao, and **Y. Jin** (2006), Validation of the *MODIS* Bidirectional Reflectance Distribution Function and albedo retrievals using combined observations from the Aqua and Terra platforms, *IEEE Transaction on Geoscience and Remote Sens*ing, 44(6), 1555-1565, doi: 10.1109/TGRS.2006.871564.

13. **Jin, Y.**, and D.P. Roy (2005), Fire-induced albedo change and its radiative forcing at the surface in northern Australia, *Geophysical Research Letters*, 32(13), L13401, doi:10.1029/2005GL022822.

12. Roy, D.P., **Y. Jin**, P. E. Lewis, and C. O. Justice (2005), Prototyping a global algorithm for systematic fire-affected area mapping using MODIS time series data, *Remote Sensing of Environment*, 97(2), 137-162, doi:10.1016/j.rse.2005.04.007.

11. Diner, D. J., B. H. Braswell, R. Davies, N. Gobron, J. Hu, **Y. Jin**, R. A. Kahn, Y. Knyazikhin, N. Loeb, J.-P. Muller, A. W. Nolin, B. Pinty, C. B. Schaaf, G. Seiz, and J. Stroeve (2005), The value of multiangle measurements for retrieving structurally and radiatively consistent properties of clouds, aerosols, and surfaces, *Remote Sensing of Environment*, 97(4), 495-518, doi:10.1016/j.rse.2005.06.006.

10. **Jin, Y.**, C. B. Schaaf, F. Gao, X. Li, A. H. Strahler, W. Lucht, and S. Liang (2003), Consistency of MODIS surface BRDF/Albedo retrieval, 1. Algorithom performance, *Journal of Geophysical Research-Atmosphere*, 108(D5), 4158, doi:10.1029/2002JD002803.

9. **Jin, Y**., C. B. Schaaf, C. E. Woodcock, F. Gao, X. Li, A. H. Strahler, W. Lucht, and S. Liang (2003), Consistency of MODIS surface BRDF/albedo retrieval, 2. Validation, *Journal of Geophysical Research-Atmosphere*, 108(D5), 4159, doi:10.1029/2002JD002804.

8. Oleson, K. W., G. B. Bonan, C. B. Schaaf, F. Gao, **Y. Jin**, and A. H. Strahler (2003), Assessment of global climate model land surface albedo using MODIS data, *Geophysical Research Letter*, 30(8), 1443, doi:10.1029/2002GL016749.

7. Gao, F., C. B. Schaaf, A. H. Strahler, **Y. Jin**, and X. Li (2003), Detecting vegetation structure using a kernel based BRDF model, *Remote Sensing of Environment (2003)*, 86(2), 198-205, doi:10.1016/S0034-4257(03)00100-7.

6. Zhou, L., R. E. Dickinson, Y. Tian, X. Zeng, Y. Dai, Z. Yang, C. B. Schaaf, F. Gao, **Y. Jin**, A. Strahler, R.B. Myneni, H.Yu, W. Wu, and M. Shaikh (2003), Comparison of seasonal and spatial variations of albedos from Moderate-Resolution Imaging Spectroradiometer (MODIS) and Common Land Model, *Journal of Geophysical Research*, *108(D15)*, 4488, doi:10.1029/2002JD003326.

5. **Jin, Y.**, F. Gao, C. B. Schaaf, X. Li, A. H. Strahler, C. J. Bruegge, and J. V. Martonchik (2002), Improving MODIS surface BRDF/Albedo retrievals with MISR observations, *IEEE Transactions on Geoscience and Remote Sensing*, 40(7), 1593-1604, doi:10.1109/TGRS.2002.801145.

4. Gao, F., **Y. Jin**, C.B. Schaaf, X. Li, and A.H. Strahler (2002), Bi-directional NDVI and atmospherically resistant BRDF inversion for vegetation canopy, *IEEE Transactions on Geoscience Remote Sensing*, 40(6), 1269-1278, doi:10.1109/TGRS.2002.800241.

3. Schaaf, C.B., F. Gao, A.H. Strahler, W. Lucht, X. Li, T. Tsang, N.C. Strugnell, X. Zhang, **Y. Jin**, J.-P. Muller, P. Lewis, M. Barnsley, P. Hobson, M. Disney, G. Roberts, M. Dunderdale, C. Doll, R. d'Entremont, B. Hu, S. Liang, and J.L. Privette (2002), First operational BRDF, albedo and nadir reflectance products from MODIS, *Remote Sensing of Environment*, 83(2), 135-148, doi: 10.1016/S0034-4257(02)00091-3.

2. **Jin, Y**., C.B. Schaaf, F. Gao, X. Li, A.H. Strahler, X. Zeng, and R.E. Dickinson (2002), How does snow impact the albedo of vegetated land surfaces as analyzed with MODIS data? *Geophysical Research Letters*, 29(10), 1374, doi:10.1029/2001GL014132.

1. Wu, B., and **Y. Jin** (1997), Twilight polarization and optical depth of stratospheric aerosols over Beijing after the Pinatubo volcanic eruption, *Applied Optics,* 36(27), 7009-7015, doi: 10.1364/AO.36.007009.

Invited Speaker

2014 "Monitoring and Understanding Ecosystem Dynamics Using Satellite imageries", University of California at Berkeley, CA

2013 "Wildland Fire, Ecosystem Dynamics, and Climate Change: From Boreal Forest to Southern California's Shrubland", *Tod Spieker Colloqium*, University of California at Los Angeles, CA

2010 "Global fire emissions and fire effects on biophysical properties and the associated radiative forcing", *NASA MODIS/VIIRS Science Team Meeting*, Washington DC

2008 "Estimation of net radiation and evapotranspiration in California using MODIS satellite observations", *AmeriFlux Science Meeting*, Boulder, Colorado

2007 "Mechanisms controlling California's carbon budget at an inter-annual timescale", NASA Jet Propulsion Lab, Pasadena, CA

2005 "Monitoring surface albedo change using MODIS satellite observations", California Institute of Technology, Pasadena, CA

2004 "Monitoring global vegetation using satellite remote sensing", University of California at Los Angeles, CA

Selected Lead-Author Presentations

2014 "Contrasting behavior and economic impact of wildfires in California's Mediterranean ecosystems", Yufang Jin, Michael Goulden, Michael Hand, and James Randerson, *99th ESA Annual Meeting*, Sacramento, CA

2013 "Wildfires in southern California: climatic drivers and future projections", Yufang Jin, James Tremper Randerson, Scott B Capps, Alexander D Hall, Nicolas Faivre, Michael Goulden, *AGU Fall Meeting*, San Francisco, CA

2013 "Modeling the Spatial Pattern of Wildfire Ignition and Burned Area in Southern Californian Mediterranean Ecosystems", Nicolas Faivre, Yufang Jin, Michael Goulden, James Tremper Randerson, *AGU Fall Meeting*, San Francisco, CA

2013 "Increased wildland fires in southern California during the mid-21st Century", *NASA Terrestrial Ecology Science Team Meeting*, La Jolla, CA

2012 "Modeling climate-wildfire relationships in Southern California", *AGU Fall Meeting*, San Francisco, CA

2011 "The influence of burn severity on post-fire vegetation recovery and albedo change during early succession in North American boreal forests", *AGU Fall Meeting*, San Francisco, CA

2011 "Wildland fires in Southern California: a temporal perspective", *NASA Carbon Cycle and Ecosystems Joint Science Workshop*, Washington DC

2010 "Fire induced changes in albedo and the associated radiative forcing: a comparison of boreal Canada and Australia tropical savannas", *NASA Land Cover and Land Use Change Science Team Meeting*, Bethesda, MD

2009 "Post-fire albedo change and the associated radiative forcing in northern and southern Canadian boreal forest", *AGU Fall Meeting*, San Francisco, CA

2006 "Fire-induced albedo changes and the associated radiative forcing: a comparison of boreal forests and tropical savanna"s, *The 2nd International young scientists's global change conference and ESSP Open Science Conference*, Beijing, China

2005 "Interannual variability in FPAR and NPP across California's ecosystems", *AGU Fall Meeting*, San Francisco, CA

2004 "Australian continental albedo dynamics", *The 12th Australasian Remote Sensing and Photogrammetry Conference*, Fremantle, Western Australia

2003 "Improved MODIS burned area mapping by combined use of multi-temporal Terra and Aqua MODIS data - early results", *AGU Fall Meeting*, San Francisco, CA

2001 "A synergistic surface BRDF/Albedo retrieval with MODIS and MISR observations: Intercomparison", *The AMS 11th Conference on Satellite Meteorology and Oceanography*, Madison, WI

Professional service

Panelist

NASA Suomi National Polar-Orbiting Partnership Science Team (2014)
NASA Terrestrial Ecology Program
NASA Earth and Space Science Fellowship (Carbon Cycle & Ecosystems Focus Area)

Proposal Reviewer

National Science Foundation (CMG Collaborative Research)
NASA New Investigator Program

Journal Reviewer

Remote Sensing of Environment
Global Change Biology
Journal of Geophysical Research
Geophysical Research Letters
IEEE Transactions in Geoscience and Remote Sensing
Biogeosciences
Climatic Change
Environmental Research Letters
Remote Sensing
Environmental Management
Carbon Balance and Management

Conference Services

Session Presider, "COS 41: Community Disturbance and Recovery", *99th ESA Annual Meeting*, Sacramento, CA, August 2014

Outstanding Student Paper Awards (OSPA) Judge, *AGU Fall Meeting 2013*, San Francisco, CA

Professional societies

American Geophysical Union, Association of American Geographers, Ecological Society of America

Supervision and Mentoring Experience

Undergraduate/graduate projects:	Evan Lyons (2006–2007), Jorge De Paz (2007-2008) Thijs van Leeuwen (2008), Drew Frank (2008) Shirley Mims (2009-2010), Natalie Poot (2010) Vivek Singh (2011), Yi Wang (2010-2011) Hsiao-wen Lin (2010-2011)
Dissertation Committee:	George Azarri (2011 – present)
Post-doctoral fellow:	Dr. Nicolas Faivre (2012 – present)