Curriculum Vitae

Joseph Galewsky
Department of Earth and Planetary Sciences
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University of New Mexico, Albuquerque, NM, 87131
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Education

1996	Ph.D. in Geophysics, University of California Santa Cruz
1991	B.S. in Geophysics, Texas A&M University

Professional Positions

2010-present	Associate Professor, Department of Earth and Planetary Sciences, University of New Mexico
2005-2010	Assistant Professor, Department of Earth and Planetary Sciences , University of New Mexico
2002-2005	Postdoctoral Research Scientist, Deptartment of Applied Physics and Applied Mathematics, Columbia University
1997-2002	Senior Software Engineer, Vivid Studios, Otivo, CNET Networks, San Francisco
1997-2002	Software training consultant
1998	Postdoctoral Research Scientist, Department of Geology, Trinity College Dublin, Ireland

Visiting Scientist Positions

2012	Affiliate Research Scientist, Los Alamos National Laboratory
2007-2008	Visiting Scientist, NCAR, Mesoscale and Microscale Meterology Division
2005-2006	Visiting Scientist, NCAR, WRF Developmental Testbed Center

Peer-reviewed publications (reverse chronological order; as of 10/14, total publications = 35; total citations = 920; h-index = 20 from Google Scholar)

1. Galewsky, J. and K. Samuels-Crow, Summertime moisture transport to the southern South American Altiplano: Constraints from in-situ measurements of water vapor isotopic composition (2014), *J. Climate, in review.*

2. Ward, D. and J. Galewsky, The landscape signature of the Pacific Trade Wind Inversion on the Island of Hawaii (2014), *Journal of Geophysical Research – Earth Surface*, in press.

3. Galewsky, J. and Kimberly Samuels-Crow (2014), Water vapor isotopic composition of a stratospheric air intrusion: Measurements from the Chajnantor Plateau, Chile, *Journal of Geophysical Research – Atmospheres,* doi:10.1002/2014JD022047.

4. Samuels-Crow, K., J. Galewsky, D. Hardy, Z. Sharp, J. Worden, C. Braun (2014), Convective influences on the isotopic composition of atmospheric water vapor over the tropical Andes, *Journal of Geophysical Research – Atmospheres*, doi: 10.1002/2014JD021487.

5. Lechler, A. R., and J. Galewsky (2013), Refining paleoaltimetry reconstructions of the Sierra Nevada, California, using air parcel trajectories, *Geology*, *41*(2), 259–262, doi:10.1130/G33553.1.

6. Korty, R. L., S. J. Camargo, and J. Galewsky (2012b), Variations in Tropical Cyclone Genesis Factors in Simulations of the Holocene Epoch, *J. Climate*, *25*(23), 8196–8211, doi:10.1175/JCLI-D-12-00033.1.

7. Hurley, J. V., J. Galewsky, J. Worden, and D. Noone (2012), A test of the advection-condensation model for subtropical water vapor using stable isotopologue observations from Mauna Loa Observatory, Hawaii, *Journal of Geophysical Research - Atmospheres*, *117*(D19), doi:10.1029/2012JD018029.

8. Korty, R. L., S. J. Camargo, and J. Galewsky (2012a), Tropical Cyclone Genesis Factors in Simulations of the Last Glacial Maximum, *J. Climate*, *25*(12), 4348–4365, doi:10.1175/JCLI-D-11-00517.1.

9. Noone, D., J. Galewsky, Z. D. Sharp, and J. Worden (2011), Properties of air mass mixing and humidity in the subtropics from measurements of the D/H isotope ratio of water vapor at the Mauna Loa Observatory, *Journal of Geophysical Research*, *116*(D33113), doi:10.1029/2011JD015773.

10. Galewsky, J., C. Rella, and Z. Sharp (2011), Surface measurements of upper tropospheric water vapor isotopic composition on the Chajnantor Plateau, Chile, *Geophys Res Lett*, *38*, doi:10.1029/2011GL048557.

11. Johnson, L., Z. Sharp, and J. Galewsky (2011), Hydrogen isotope correction for laser instrument measurement bias at low water vapor concentration using conventional isotope analyses: application to measurements from Mauna Loa Observatory, Hawaii, *Rapid Commun Mass Sp*, *25*, 608–616.

12. Worden, J., D. Noone, J. Galewsky, A. Bailey, K. Bowman, D. Brown, J. Hurley, S. Kulawik, J. Lee, and M. Strong (2011), Estimate of bias in Aura TES HDO/H_2O profiles from comparison of TES and in situ HDO/H_2O measurements at the Mauna Loa observatory, *Atmospheric Chemistry and Physics*, *11*(9), 4491–4503, doi:10.5194/acp-11-4491-2011.

13. Wright, J. S., A. Sobel, and J. Galewsky (2010), Diagnosis of Zonal Mean Relative Humidity Changes in a Warmer Climate, *Journal of Climate*, *23*(17), 4556–4569, doi:10.1175/2010JCLI3488.1.

14. Galewsky, J., and J. Hurley (2010), An advection-condensation model for subtropical water vapor isotopic ratios, *J. Geophys. Res*, *115*(D16), D16116.

15. Hurley, J. V., and J. Galewsky (2010), A last-saturation diagnosis of subtropical water vapor response to global warming, *Geophys Res Lett*, *37*, L06702, doi:10.1029/2009GL042316

16. Hurley, J. V., and J. Galewsky (2010a), A Last Saturation Analysis of ENSO Humidity Variability in the Subtropical Pacific, *Journal of Climate*, *23*(4), 918–931.

17. Galewsky, J. (2009), Orographic precipitation isotopic ratios in stratified atmospheric flows: Implications for paleoelevation studies, *Geology*, *37*(9), 791–794, doi:10.1130/G30008A.1.

18. Gupta, P., D. Noone, J. Galewsky, and C. Sweeney (2009), Demonstration of high-precision continuous measurements of water vapor isotopologues in measurements of water vapor isotopologues in laboratory and remote field deployments using wavelength-scanned cavity ring-down spectroscopy (WS-CRDS) technology, *Rapid Commun Mass Sp*, *23*, 2534–2542, doi:10.1002/rcm.4100.

19. Galewsky, J., G. Roe, R. S. Anderson, G. Meyer, G. Flowers, 2008: Climate over landscapes: Workshop on atmospheric sciences and surface processes, Boulder Colorado, 1-3 October 2007, EOS, 89 (16) doi:10.1029/2008EO160004

20. Galewsky, J. (2008b), Rain shadow development during the growth of mountain ranges: An atmospheric dynamics perspective, *Journal of Geophysical Research*, *114*, doi:10.1029/2008JF001085.

21. Galewsky, J. (2008a), Orographic clouds in terrain-blocked flows: An idealized modeling study, *J. Atmos. Sci*, *65*, 3460–3478.

22. Galewsky, J., M. Strong, and Z. D. Sharp (2007), Measurements of water vapor D/H ratios from Mauna Kea, Hawaii, and implications for subtropical humidity dynamics, *Geophys Res Lett*, *34*(22), L22808, doi:10.1029/2007GL031330.

23. Galewsky, J., C. P. Stark, S. Dadson, C. C. Wu, A. H. Sobel, and M. J. Horng (2006), Tropical cyclone triggering of sediment discharge in Taiwan, *J Geophys Res-Earth*, *111*(F3), F03014, doi:10.1029/2005JF000428.

24. Galewsky, J., A. Sobel, and I. Held (2005), Diagnosis of Subtropical Humidity Dynamics Using Tracers of Last Saturation, *Journal of the Atmospheric Sciences*, *62*, 3353–3367.

25. Galewsky, J., and A. Sobel (2005), Moist dynamics and orographic precipitation in Northern and Central California during the New Year's flood of 1997, *Mon Wea. Rev.*, *133*, 1594–1612.

26. Galewsky, J., R. K. Scott, and L. M. Polvani (2004), An initial-value problem for testing numerical models of the global shallow-water equations, *Tellus*, *56A*, 429-440.

27. Allen, P.A., Bennett, S.D., Cunningham, M.J.M, Carter, A., Gallagher, K., Lazzaretti, E., Galewsky, J., Densmore, A.L., Phillips, W.E.A., Naylor, D. and Solla Hach, C., 2002: The post-Variscan thermal and denudational history of Ireland. In: Dore, A., Cartwright, J., Stoker, M., Turner, J. and White, N. (eds), Exhumation of the North Atlantic Margin: Timing, Mechanisms and Implications for Petroleum Exploration, Geological Society of London Special Publications, 196, 371-399.

28. Allen, P. A., P. M. Burgess, J. Galewsky, and H. D. Sinclair (2001), Flexural-eustatic numerical model for drowning of the Eocene perialpine carbonate ramp and implications for Alpine geodynamics, *Geological Society of America Bulletin*, *113*(8), 1052–1066, doi:10.1130/0016-7606(2001)113<1052:FENMFD>2.0.CO;2

29. Galewsky, J. (1998), The dynamics of foreland basin carbonate platforms: tectonic and eustatic controls, *Basin Research*, *10*(4), 409–416, doi:10.1046/j.1365-2117.1998.00079.x.

30. Galewsky, J., and E. Silver (1997), Tectonic controls on facies transitions in an oblique collision: The western Solomon Sea, Papua New Guinea, *GSA Bull.*, *109*(10), 1266–1278.

31. Abbott, L. D., E. A. Silver, R. S. Anderson, R. Smith, J. C. Ingle, S. A. Kling, D. Haig, E. Small, J. Galewsky, and W. S. Sliter (1997), Measurement of tectonic surface uplift rate in a young collisional mountain belt, *Nature*, *385*(6616), 501–507, doi:10.1038/385501a0.

32. Whitmore, G. P., D. P. Johnson, K. A. W. Crook, J. Galewsky, and E. A. Silver (1997), Convergent margin extension associated with arc-continent collision: The Finsch Deep, Papua New Guinea, *Tectonics*, *16*(1), 77–87, doi:10.1029/96TC02476.

33. Galewsky, J., E. A. Silver, C. D. Gallup, R. L. Edwards, and D. C. Potts (1996), Foredeep tectonics and carbonate platform dynamics in the Huon Gulf, Papua New Guinea, *Geology*, *24*(9), 819–822, doi:10.1130/0091-7613(1996)024<0819:FTACPD>2.3.CO;2.

34. McAdoo, B. G., D. L. Orange, E. A. Silver, K. McIntosh, L. Abbott, J. Galewsky, L. Kahn, and M. Protti (2012), Seafloor structural observations, Costa Rica Accretionary Prism, *Geophys Res Lett*, *23*(8), 883–886, doi:10.1029/96GL00731.

35. Abbott, L. D., E. A. Silver, and J. Galewsky (1994), Structural evolution of a modern arc-continent collision in Papua New Guinea, *Tectonics*, *13*(5), 1007–1034, doi:10.1029/94TC01623.

Funded Research Grants (11 awards from the National Science foundation as PI or co-PI; $2.5 million in NSF funds raised since 2005)

1. National Science Foundation
   Glacio-geomorphic constraints on the climate history of the high, arid Chajnantor Plateau, subtropical northern Chile
   PI: J. Galewsky (UNM), D. Ward (former postdoc, now on faculty at U. Cincinnati)
   NSF Geomorphology and Land-use Dynamics
   2012-2015: $381,218

2. National Science Foundation
   Water Vapor Isotopic Measurements on the Chajnantor Plateau, Chile and Implications for Subtropical Humidity Dynamics
   PI: J. Galewsky (UNM)
   NSF Climate Dynamics
   2012-2016: $334,132

3. National Science Foundation
   Collaborative Research: Tropical cyclones in a warming climate: Lessons from model simulations of the Last Glacial Maximum and Holocene
   PI: R. Korty (Texas A&M); S. Camargo (LDEO); J. Galewsky (UNM)
   NSF Climate Dynamics
   2011-2014: $267,162

4. National Science Foundation
   Collaborative Research: Improved Cenozoic paleoelevation estimates for the Sierra Nevada, California: Linking geodynamics and the atmospheric sciences
   PI: J. Galewsky (UNM); M. Huber (Purdue)
   NSF Tectonics
   2011-2014: $251,011

5. National Science Foundation
   EAGER: Measurement of the oxygen and hydrogen isotope composition of evaporating water using a novel cavity ringdown technique
   PI: Z. Sharp, J. Galewsky
   NSF Atmospheric Chemistry
   2010-2012: $132,700

6. National Science Foundation
   Collaborative Research: Cyberinfrastructure development for the western consortium of Idaho, Nevada, and New Mexico
   NSF EPSCoR
   PI: W. Michener and J. Galewsky
   2009-2012; $200,000

7. National Science Foundation
   Climate change impacts on New Mexico's mountain sources of water
   PI: W. Michener and J. Galewsky
   NSF EPSCoR
   2008-2013; $600,000

8. National Science Foundation
   Acquisition of a tunable diode laser absorption spectroscopic isotope analyzer and peripheral induction furnace
   PI: Z. Sharp, J. Galewsky
   NSF EAR Instrumentation and Facilities
   9/2009-10/2009; $61,115

9. National Science Foundation
   Collaborative Research: Intercomparison of atmospheric water vapor isotope measurements from Mauna Loa, Hawaii and implications for characterizing subtropical humidity
   PI: J. Galewsky, Z. Sharp, and D. Noone (U. Colorado)
   NSF Climate Dynamics
   10/2008-10/2009, $67,412

10. National Science Foundation

Climate over landscapes: A workshop on the links between atmospheric sciences and landscape dynamics
PI: J. Galewsky and G. Roe (U. Washington)
NSF Geomorphology and Land Use Dynamics/Climate Dynamics programs
5/2007-5/2008, $75,000

11. National Science Foundation
Collaborative Research: Diagnosis of subtropical humidity dynamics using tracers of last saturation
PI: J. Galewsky and A. Sobel (Columbia University)
NSF Climate Dynamics program
2006-2009, $184,842

Professional Service

2008-2012	Panel member for National Research Council Research Associateship Program
2007-2011	Member of Terrestrial and Cyberinfrastructure Working Group for Community Surface Dynamics Modeling System (CSDMS)
2007-2008	Co-author of report to US National Research Council on research agenda for atmospheric sciences/geomorphology community (with G. Roe, U. Washington)
2007	Co-convenor of workshop "Climate over landscapes" at the National Center for Atmospheric Research

University Service

2012-present	UNM College of Arts and Sciences Promotion and Tenure Committee
2013-present	EPS Department Strategic Planning Committee member
2005-present	EPS Department Computer Committee (Chair 2007-present)
2007-2013	Faculty representative to Caswell Silver Foundation Alumni Board
2012	Co-chair Geophysics faculty search
2011	External chair search committee member
2009-2010	Undergraduate committee member
2007	Hydrology search committee member
2007	EPS Department Productivity Assessment Committee member
2005-2007	EPS Department Graduate committee member

Invited Lectures

1. University at Albany, January 2013
2. University of Colorado Boulder, October 2009
3. New Mexico Tech, November 2008
4. UNM Economics Department, November 2008
5. UNM Math and Statistics Department, September 2008
6. UCLA, May 2008
7. Arizona State University, March 2008
8. Los Alamos National Laboratory, February 2008
9. Texas A&M University, April 2007
10. Purdue University, March 2007
11. Yale University, January 2007
12. Columbia University, January 2007
13. Boise State University, April 2006

Community Outreach

2006, Seminar at the Albuquerque Geological Society.
2006, interviewed by Boise, ID, ABC-TV affiliate
2009, Invited speaker at Southwestern Undergraduate Mathematics Research Conference (SUNMaRC) Albuquerque
2009 American Meteorological Society Summer Policy Colloquium, fully-funded participant representing minority-serving institution

Students/Postdocs Supervised

Master's Students

Alec Tunner	current (1st year)
Lauren Vargo	current (1st year)

Ph.D. Students

John Hurley	2010 (Postdoctoral Scientist at SUNY Albany)
Kimberly Samuels-Crow	current (4th year)

Postdoctoral Scientists

Dylan Ward	2010-2012 (Assistant Professor at University of Cincinnati)
Alex Lechler	2011-2013 (Postdoctoral Scientist at University of Washington)

Committee Member

1. Scott Jasechko, 2012-
2. Shannon Miller, 2012-
3. Justin Dodd, 2009-2012
4. Adam Ringler, 2009-2010
5. Mel Strong, 2006-2011
6. James Hulka, 2008-2010
7. Caitlin Callahan, 2006-2008
8. Ginny Rust, 2006-2008
9. Leah Johnson, 2005-2007
10. Anders Lundahl, 2005-2006
11. Brian Yanites (*University of Colorado, Boulder*), PhD completed June 2009

Teaching Evaluations

(ICES student evaluation scores have a maximum possible score of 6; IDEA evaluations initiated in 2009 have a maximum possible score of 5.)

Fall 2005

EPS 522 – Hydrometeorology of the Southwest — 9 students
ICES: Content—5.0; Instructor—5.8; Course—5.4

Spring 2006

EnvSci 101: The Blue Planet — 85 students
ICES: Content – 5.3; Instructor – 5.6; Course – 5.3

Fall 2006

EPS 476/576: Physical Hydrology — 15 students
ICES: Content – 4.9; Instructor – 5.2; Course – 5.0

Spring 2007

EnvSc 101: The Blue Planet — 175 students
ICES: Content – 5.3; Instructor – 5.5; Course – 5.2
EPS 522: Appl Math for Earth/Env Sci — 13 students
ICES: Content – 5.6; Instructor – 5.6; Course – 5.6

Fall 2007

EPS 476/576: Physical Hydrology — 23 students
ICES: Content – 5.0; Instuctor – 5.0; Course – 4.9

Spring 2008

EnvSc 101: The Blue Planet — 160 students
ICES: Content—4.9; Instructor—5.2; Course—4.8
EPS 522: Fluid Mechanics — 11 students
ICES: Content—4.5; Instructor—4.5; Course—4.0

Fall 2008

Research semester – no classes

Spring 2009

EPS 476/576: Physical Hydrology — 14 students
IDEA: Objectives – 4.5; Instructor – 4.6; Course – 5.0

Fall 2009
EnvSci 101: The Blue Planet 205 students
Spring 2010
EnvSc 101: The Blue Planet 275 students
IDEA: Objectives – 4.8; Instructor – 5.0; Course – 4.9
EPS 437/537: Applied Meteorology 15 students
IDEA: Objectives – 3.8; Instructor – 4.0; Course – 3.6
Fall 2010
EPS 428/528: Applied Mathematics 10 students
Spring 2011
EnvSc 101: The Blue Planet 250 students
IDEA: Objectives – 4.5; Instructor – 4.5; Course - 4.4
EPS 576: Physical Hydrology 9 students
IDEA: Objectives – 3.5; Instructor – 4.2; Course – 3.7
EPS 476: Physical Hydrology 9 students
IDEA: Objectives – 3.4; Instructor – 4.2; Course – 3.8

On sabbatical with no teaching obligations during 2011-2012 academic year
Fall 2012
EnvSc101*: UNM FLC "Practice of the Wild"* 22 students
EPS 428/528: Applied Mathematics 13 students
Spring 2013
EnvSc 101: The Blue Planet 270 students
IDEA: Objectives – 4.1; Instructor – 4.5; Course – 4.4
EPS 576: Physical Hydrology 15 students
IDEA: Objectives – 4.0; Instructor – 4.3; Course – 4.3

Honors and Awards
1993 Aaron and Elizabeth Waters Prize for Best Graduate Student Thesis Proposal, UC Santa Cruz Earth Science Department.