

Eric Kirby
College of Earth, Ocean and Atmospheric Sciences
Oregon State University
Corvallis, OR 97330
eric.kirby@oregonstate.edu

Education: B.A. 1992 Geology Hamilton College (with honors, Magna Cum Laude)
M.S. 1994 Geology University of New Mexico (with distinction)
Ph.D. 2001 Geology Massachusetts Institute of Technology
Advisors: Prof. B.C. Burchfiel, Prof. Kelin X. Whipple

Professional Experience:

2020 – present: Professor – University of North Carolina, Chapel Hill
2017 – 2020: Associate Dean for Academic Programs, CEOAS
2013 – 2020: R.S. Yeats Chair in Earthquake Geology and Active Tectonics
2017 – 2020: Professor – Oregon State University
2013 – 2017: Associate Professor – Oregon State University
2008 – 2013: Associate Professor – The Pennsylvania State University
2002 – 2008: Assistant Professor – The Pennsylvania State University
2001 – 2002: NSF Postdoctoral Fellow – UCSB (Dr. Douglas W. Burbank)

Visiting Academic Appointments:

2014 – present: Guest Professor – China Earthquake Administration, Beijing
2016 – present: Adjunct Faculty – Dalhousie University
2010 – 2011: Humboldt Fellow – University of Potsdam, Germany

Awards:

Fellow, Geological Society of America: 2014
Alexander Von Humboldt Fellow: 2010 – 2013
Scholar in Residence – Earth and Environmental Systems Institute: 2010
NSF Earth Sciences Postdoctoral Fellowship: 2000
NSF Graduate Research Fellowship: Honorable Mention; 1992, 1993
Phi Beta Kappa, 1992
Sigma Xi, 1992

RESEARCH INTERESTS

My research seeks to understand the interplay between climate, erosion, and tectonics during the growth and decay of mountain ranges. The scope of my current research interests include: 1) understanding the evolution active fault systems and the records of past earthquakes (Tibet; Eastern California; Japan); 2) the evolution of topography along convergent margins (Cascadia, Japan, Costa Rica), 3) fluvial adjustment to spatial and temporal variations in rock uplift (India/Nepal; California; Japan); 4) the coupling between mantle flow, surface deformation and surface processes (Appalachians, Rocky Mountains); 5) the growth of the Tibetan Plateau and its connections to climate; and 6) the coupling among hydrology, soil erosion, and landscape evolution (PA, CA).

PROFESSIONAL ACTIVITIES

Editorships:

Editor, *Lithosphere* (2012-2016)
Associate Editor, *Geology* (2002-2005; 2009-2011)
Associate Editor, *Geologic Society of America Bulletin* (2007-2011; 2012-2014)
Associate Editor, *Tectonics* (2004-2011)

Advisory Groups and Committees:

SZ4D working group on surface process hazards in subduction zones (2020 – present)
GSA International Interest Group, Chair (2019 – present)
GSA Education Committee, Graduate Education Representative (2018 – present)
National Center for Airborne Laser Mapping (NCALM) Steering Committee (2017-present)
Co-chair - IRIS Grand Challenge Science Committee, *Interactions among climate, hydrology, surface processes and tectonics* (2014-2016)
AGU Tectonophysics Jason Morgan Award Committee (2016-2018)
NSF GeoEarthscope Working Group on Geochronology (2006-2007)
Terrestrial Working Group of the Community Surface Dynamics Modeling System (2007-2010)
AGU Tectonophysics Program Committee (2009–2010)

Workshops/Conferences Organized:

American Geophysical Union (AGU) Annual Meeting special sessions:
2005: *Beyond steady-state: The dynamics of transient landscapes*
2008: *Wrinkles are not just skin deep: Surface expressions of mantle-lithosphere coupling*
2008: *Growth of the Tibetan Plateau and its influence on climate*
2009: *Processes in the Critical Zone: Interaction of rock, water, and life*
2012: *Links between tectonics, climate, erosion and sedimentation in orogenic plateaus and marginal basins*
2013: *Evolution of the northern Tibetan Plateau: Lithospheric geodynamics, plateau uplift, and links to climate change*
2015: *Growth of orogenic plateaus: New tools, emerging ideas and outstanding questions*
2015: *Climate-tectonic coupling in orogens: Taiwan and beyond*
2016: *Natural laboratories of climate-erosion-tectonic interactions during mountain building*
2019: *Circum-Tibetan Plateau basin and orogen systems: Archives of tectonic deformation and surface processes*

Geologic Society of America (GSA) Annual Meeting special sessions:
2007: *Deformation and the landscape: Quantitative approaches to tectonic geomorphology*
2014: *Feedbacks among tectonics and surface processes during Cenozoic growth of topography in Asia*
2018: *The Cenozoic evolution of Tibet – How do we unify seemingly contradictory evidence?*
2019: Late Breaking Session: *Ten-million years of deformation along the Eastern California Shear Zone: Context and Characterization of the July 2019 Mw 7.1 Ridgecrest Earthquake*

Geological Society of America (GSA) Section Meeting special sessions:
2012: *Cenozoic landscape evolution in the Rocky Mountains and Colorado Plateau: Deciphering the interplay between mantle buoyancy and surface processes*

European Geosciences Union (EGU) special sessions:
2011: *Tectonic geomorphology and landscape evolution*

Asia Oceania Geosciences Society (AOGS) special sessions:
2018: *Cenozoic crustal deformation, surface processes, and earthquake hazards of the Qinghai-Tibetan Plateau and adjacent regions*

2011 GSA/GV Fragile Earth Conference, Munich
2011: *Geomorphology and surface processes of tectonically active regions*

National Science Foundation (NSF) Workshops:
2006: NSF Earthscope workshop on LiDAR in northern California (co-convener)
2006: NSF Earthscope GeoFrame workshop on the Eastern California Shear Zone/Walker Lane (co-convener)

- 2010: NSF Workshop on Future directions of NSF-sponsored research in the Himalaya/Tibet (co-convenor)
 2015: NSF Workshop on Feedbacks Among Climate, Erosion, and Tectonics during mountain building (FACET) (co-convenor)
 2017: NSF Second Workshop on Feedbacks Among Climate, Erosion, and Tectonics during mountain building (primary convenor)

Field Trips:

- 2008: GSA field trip Co-leader: *Active Tectonics of the Eastern California Shear Zone*
 2013: GSA field trip Co-leader: *Origin and Evolution of the Upper Colorado River System: Evaluating the Competing Roles of Neogene Tectonism and Drainage Integration*
 2015: GSA field trip Co-leader: *Great Falls of the Potomac and the Evolution of a Decay-Phase Orogen, the Appalachian Mountains*
 2016: GSA field trip Co-leader: *Dynamic topography, regional uplift and integration history of the Colorado-Green River Systems*
 2016: Friends of the Pleistocene, Pacific cell field trip leader: *Neotectonic, alluvial and lacustrine history of Panamint Valley during the Late Pleistocene*
 2017: Friends of the Pleistocene, Pacific cell field trip contributing leader: *Northern Owens Valley*

Educational Short Courses:

- GSA Short Course (2007): *New tools for quantitative geomorphology: Extraction and interpretation of stream profiles from digital topographic data*
 Lanzhou University (2010): *Tectonic Geomorphology: Fluvial incision into bedrock and the interpretation of channel profiles*
 Potsdam University (2011): *Tectonics and Topography: Quantitative analysis of river profiles*
 GSA/GV Fragile Earth Short Course (2011): *Neotectonics, Tectonic Geomorphology and Paleoseismology of Tectonically Active Regions*
 China Earthquake Administration, Institute of Geology, Beijing (2014): *Tectonic Geomorphology*
 Roma Tre University, Dottorato di Ricerca in Scienze Della Terra, Rome (2016): *Tectonics and Climate Encoded in Landscape Topography*
 Sun Yat Sen University, Guangzhou, (2019): *Tectonics and Climate Encoded in Landscape Topography*
 China Earthquake Administration, Institute of Geology, Beijing, (2019): *Tectonics and Climate Encoded in Landscape Topography*

Workshop participation:

- NSF Earthscope Science Planning Workshop (2009) – invited speaker
 NSF MARGINS Science Planning Workshop (2010) – breakout group leader
 NSF EarthCube Domain End-user Workshop for Structural Geology (2012) – invited speaker
 NSF Earthscope Project Workshop (2013) – speaker
 IRIS Workshop (2014) – invited plenary speaker
 IODP Workshop (2015) *Investigating Cascadia Subduction Zone Geodynamics Through Scientific Ocean Drilling* – attendee
 NSF SAGE-GAGE Workshop (2015) *Future Seismic and Geodetic Facility Needs in the Geosciences* – breakout group leader
 CIDR 2015 Summer Program (2015) *Solid Earth Dynamics and Climate – Mantle Interactions with the Hydrosphere and Carbonsphere* - invited senior participant
 IRIS Workshop (2016) *Subduction Zone Observatory* – invited plenary speaker
 GSA Field Forum (2019) *Age and carving of Grand Canyon: Towards a resolution of 150 years of debate* - participant

Membership in Professional Societies:

- American Association for the Advancement of Science
 American Geophysical Union
 Geological Society of America

UNIVERSITY SERVICE

Oregon State University

- President's and Provost's Council on Diversity, Equity, Inclusion and Social Justice (2017 – present)
- Undergraduate Education Council (2017 – present)
- University Assessment Council (2017 – present)
- Member, Data Science Steering Committee (2018 – 2019)
- Student Recruitment Council (2017 – present)
- Member of the University Bargaining Team, Coalition of Graduate Employees (2018)
- Member of the University Bargaining Team, Coalition of Graduate Employees (2019-2020)
- University Faculty Senate Promotion & Tenure Committee (2014-2017)
- Oregon State ADVANCE Committee on Policy and Procedure (2015)
- Oregon State Export Control Advisory Committee (2015-2017)

College of Earth, Ocean and Atmospheric Sciences

- Chair, Undergraduate Program Committee (2017 – present)
- Chair, Graduate Program Committee (2017 – present)
- Standing member, College Leadership Team (2017 – present)
- Standing member, College Operations Team (2017 – present)
- Member, Senior Faculty Review Committee (2019)
- Geography Faculty Search Committee, Natural Hazards (2015-2016)
- CEOAS Promotion and Tenure Committee (2015-2016)
- CEOAS Computer Task Force (2016-2017)
- Associate Dean for Research and Faculty Enhancement Search Committee (2016-2017)
- Geology and Geophysics program representative on the College Leadership Team (2016-2017)

Geology and Geophysics Program

- Geology and Geophysics Graduate Admissions Committee (2014-2015; 2015-2016)
- Ad-hoc committee on sample preparation facilities (2015 - present)
- Geology and Geophysics Faculty Search Committee (2013-2014; 2014-2015)
- Field camp committee (2013 – present)
- G&G graduate program task force (2015-2016)
- Geology and Geophysics program representative (2016-2017)

Pennsylvania State University

College of Earth and Mineral Sciences

- College of Earth and Mineral Sciences, Environment Committee (2002-2005)
- Advisory Board – Earth and Environmental Systems Institute (2009-2010)

Department of Geosciences

- Promotion and Tenure Committee (2012-2013)
- Executive Committee (2003-2004, 2009-2010, 2012-2013)
- Undergraduate Program Committee (2003-2005, 2008-2010, 2011-2013)
- Faculty Search Committee (2003-2004, 2004-2005)
- Graduate Admissions Committee (2005-2006, 2011-2012 – Chair)

PUBLICATIONS

[Google Scholar h-index 44](#)

77 Articles in refereed journals (* denotes student author advised by Kirby)

- Rittase, W.M., Walker, J.D., Andrew, J., **Kirby, E.**, and Wang, E., in press, Pliocene – Pleistocene basin evolution along the Garlock fault zone, Pilot Knob Valley, California: *Geosphere*
- Zhang, H., **Kirby, E.**, Li, H., Cook, K., and Zhang, P., 2020, Ten years after the Wenchuan earthquake: New insights into the geodynamics of the Eastern Tibet: *Tectonics*, v. 39, e2020TC006215.
- *Su, Q., **Kirby, E.**, Ren, Z., Zhang, P., Zhang, H., Manopkawe, P., and Lei, Q., 2020, Chronology of the Yellow River terraces at Qingtong Gorge (NE Tibet): Insights into the evolution of the Yellow River since the Middle Pleistocene: *Geomorphology*, v. 349, 106889. (published online October, 24, 2019)
- Aslan, A., Karlstrom, K., **Kirby, E.**, Heizler, M., Granger, D., Feathers, J., Hanson, P., and Mahan, S., 2019, Resolving time-space histories of Late Cenozoic bedrock incision along the Upper Colorado River, USA: *Geomorphology*, v. 347, 106855 (published online August 30, 2019)
- *Li, K., **Kirby, E.**, Xu, X., Chen, G., and Wang, D., 2019, Holocene normal faulting rate along the Dong Co Fault, central Tibet: *Journal of Asian Earth Sciences*, v. 183, 103962. (published online August 12, 2019)
- *West, N., **Kirby, E.**, Nyblade, A., and Brantley, S., 2019, Climate preconditions the Critical Zone: Elucidating the role of subsurface fractures in the evolution of asymmetric topography: *Earth and Planetary Science Letters*, v. 513, pp. 197-205.
- DiBiase, R.A., Denn, A.R., Bierman, P.R., **Kirby, E.**, West, N., and Hidy, A.J., 2018, Stratigraphic control of landscape response to base-level fall, Young Womans Creek, Pennsylvania, USA: *Earth and Planetary Science Letters*, v. 504, pp. 263-173, doi: 10.1016/j.epsl.2018.10.005.
- Denn, A.R., Bierman, P.R., Zimmerman, S.R.H., Caffee, M.W., Corbett, L.B., and **Kirby, E.**, 2018, Cosmogenic nuclides indicate that boulder fields are dynamic, ancient, multigenerational features: *GSA Today*, v. 28, doi:10.1130/GSATG340A.1 (published online December 20, 2017)
- *Li, K., Xu, X., **Kirby, E.**, Tang, F., and Kang, W., 2018, Late Quaternary paleoseismology of the Milin fault: Implications for active tectonics along the Yarlung Zangbo Suture, Southeastern Tibet Plateau: *Tectonophysics*, v. 731-732, p.64-72 (doi:10.1016/j.tecto.2017.12.026, published online December 29, 2017)
- *Regalla, C., Fisher, D.M., **Kirby, E.**, Oakley, D. and Taylor, S., 2017, Slip inversion along inner fore-arc faults, Eastern Tohoku, Japan: *Tectonics*, v. 37, p. 2647-2668 (doi:10.1002/2017TC004766, published online November 24, 2017)
- *Shi, X., **Kirby, E.**, Furlong, K.P., Meng, K., Robinson, R., Lu, H., and Wang, E., 2017, Rapid and punctuated Late Holocene recession of Siling Co, central Tibet: *Quaternary Science Reviews*, v. 172, p.15-31 (doi:10.1016/j.quascirev.2017.07.017, published online July 20, 2017)
- *Shi, X., Furlong, K., **Kirby, E.**, Meng, K., Marrero, S., Gosse, J., Wang, E., and Phillips, F., 2017, Evaluating the size and extent of paleolakes in central Tibet during the late Pleistocene: *Geophysical Research Letters*, v. 44, p. 5476-5485 (doi:10.1002/2017GL072686, published online June 12, 2017)
- Wang, W., Zheng, W., Zhang, P., Li, Q., **Kirby, E.**, Yuan, D., Zheng, D., Liu, C., Wang, Z., Zhang, H., and Pang, J., 2017, Expansion of the Tibetan Plateau during the Neogene: *Nature Communications*, 8:15887 (doi: 10.1038/ncomms15887, published online June 21, 2017)
- Zhang, H., **Kirby, E.**, Pitlick, J., Anderson, R.S., and Zhang, P., 2017, Transient geomorphic response to base level fall in the northeastern Tibetan Plateau: *Journal of Geophysical Research – Earth Surface*, v. 122, p. 546-572 (doi:10.1002/2015JF003715, published online February 24, 2017)
- Sullivan, P.L., Hynek, S., Gu, X., Singha, K., White, T., West, N., Kim, H., Clarke, B., **Kirby, E.**, Duffy, C., and Brantley, S.L., 2016, Oxidative dissolution under the channel leads geomorphological evolution at the Shale Hills catchment: *American Journal of Science*, v. 316, p. 981-1026.
- *Yu, J., Zheng, W., **Kirby, E.**, Zhang, P., Lei, Q., Ge, W., Wang, W., Li, X., and Zhang, N., 2016, Kinematics of Late Quaternary slip along the Yabrai Fault: Implications for Cenozoic tectonics across the Gobi Alashan block, China: *Lithosphere*, v. 8 (doi: 10.1130/L509.1, published online March 3, 2016)

- *Shi, X., **Kirby, E.**, Furlong, K.P., 2016, Reply to Comment on “Crustal strength in central Tibet determined from Holocene shoreline deflection around Siling Co”: *Earth and Planetary Science Letters*, v. 433, p. 396-398.
- Hu, X., Pan, B., Gao, H., **Kirby, E.**, Hu, Z., Cao, B., Geng, H., Li, Q., and Zhang, G., 2015, Rates and kinematics of active shortening along the eastern Qilian Shan, China, inferred from deformed fluvial terraces: *Tectonics*, v. 34, p. 1-16 (doi: 10.1002/2105TC003978, published online November 14, 2015)
- Ballato, P., Landgraf, A., Schildgen, T.F., Stockli, D.F., Fox, M., Ghassemi, M.R., **Kirby, E.**, and Strecker, M.R., 2015, The growth of a mountain belt forced by base-level fall: Tectonics and surface processes during the evolution of the Alborz Mountains, N Iran: *Earth and Planetary Science Letters*, v. 425, p. 204-218 (doi: 10.1016/j.epsl.2015.05.051, published online June 12, 2015)
- Zhang, H., Zhang, P., **Kirby, E.**, and Yi, G., 2015, On the evolution of seismogenic faults in the Longmen Shan, eastern Tibet: *Journal of Asian Earth Sciences*, v. 111, p. 624-631 (doi:10.1016/j.jseas.2015.05.014, published online June 3, 2015)
- *Shi, X., **Kirby, E.**, Furlong, K.P., Meng, K., Robinson, R., and Wang, E., 2015, Crustal strength in central Tibet determined from Holocene shoreline deflection around Siling Co: *Earth and Planetary Science Letters*, v.423, p. 145-154 (doi: 10.1016/j.epsl.2015.05.002, published online May 14, 2015)
- *Craddock, W.H., **Kirby, E.**, Zhang, H., Clark, M.K., Champagnac, J.-D., and Yuan, D., 2014, Rates and style of Cenozoic deformation around the Gonghe Basin, northeastern Tibetan Plateau: *Geosphere*, v. 10, p. 1255-1282. (doi: 10.1130/GES01024.1, published online November 12, 2014)
- *Shi, X., **Kirby, E.**, Lu, H., Robinson, R., Furlong, K.P., and Wang, E., 2014, Holocene slip rate along the Gyaring Co Fault, central Tibet: *Geophysical Research Letters*, v. 41, p. 5829 – 5837. (doi: 10.1002/2014GL060782, published online August 20, 2014)
- *Rosenberg, R., **Kirby, E.**, Aslan, A., Karlstrom, K., Heizler, M., and Ouimet, W., 2014, Late Miocene erosion and evolution of topography along the western slope of the Colorado Rockies: *Geosphere*, v. 10, p.641 – 663. (doi: 10.1130/GES00989.1, published online July 14, 2014)
- Aslan, A., Hood, W.C., Karlstrom, K.E., **Kirby, E.**, Granger, D.E., Kelley, S., Crow, R., and Donahue, M.S., 2014, Abandonment of Unaweep Canyon (1.4 to 0.8 Ma), western Colorado: Effects of stream capture and anomalously rapid late Quaternary river incision: *Geosphere*, v. 10 (doi:10.1130/GES00986.1, published online May 13, 2014)
- *West, N., **Kirby, E.**, Bierman, P.R., and Clarke, B.A., 2014, Aspect-dependent variations in regolith creep revealed by meteoric ¹⁰Be: *Geology*, v.42, p. 507 - 510. (doi:10.1130/G35357.1, published online April 15, 2014)
- Zhang, H., Zhang, P., Champagnac, J.-D., Molnar, P., Anderson, R., **Kirby, E.**, Craddock W., and Liu, S., 2014, Pleistocene drainage reorganization driven by the isostatic response to deep incision into the northeastern Tibetan Plateau: *Geology*, v. 42, p. 302-306 (doi:10.1130/G35115.1, published online Feb. 24, 2014)
- *Rittase, W., **Kirby, E.**, McDonald, E., Walker, J.D., Gosse, J., Spencer, J., and Herrs, A.J., 2014, Temporal variations in Holocene slip rate along the central Garlock fault, Pilot Knob Valley, California: *Lithosphere*, v. 6, p. 48-58 (doi:10.1130/L286.1, published online Jan. 17, 2014)
- *Regalla, C., Fisher, D.M., **Kirby, E.**, and Furlong, K.P., 2013, Relationship between outer forearc subsidence and plate boundary kinematics along the Northeast Japan convergent margin: *Geochemistry, Geophysics, Geosystems*, v. 14, p. 5227-5243 (doi:10.1002/2013GC005008, published online Dec. 20, 2013)
- Yuan, D.-Y., Ge, W.-P., Chen, Z.-W., Li, C.-Y., Wang, Z.-C., Zhang, H.-P., Zhang, P.-Z., Zheng, D.-W., Zheng, W.-J., Craddock, W.H., Dayem, K.E., Duvall, A.R., Hough, B.G., Lease, R.O., Champagnac, J.-D., Burbank, D.W., Clark, M.K., Farley, K.A., Garzzone, C.N., **Kirby, E.**, Molnar, P., and Roe, G.H., 2013, The growth of northeastern Tibet and its relevance to large-scale continental geodynamics: A review of recent studies: *Tectonics*, v. 32, p. 1358-1370 (doi:10.1002/tect.20081, published online Oct. 3, 2013)
- Duvall, A.R., Clark, M.K., **Kirby, E.**, Farley, K.A., Craddock, W.H., Li, C., and Yuan, D.-Y., 2013, Low-temperature thermochronometry along the Kunlun and Haiyuan faults, NE Tibetan Plateau: Evidence for kinematic change during late stage orogenesis: *Tectonics*, v. 32, p. 1190-1211 (doi:10.1002/tect.20072, published online Oct. 1, 2013)
- McAullife, L.J., Dolan, J.F., **Kirby, E.**, Rollins, C., Haravitch, B., Alm, S., and Rittenour, T.M., 2013, Paleoseismology of the southern Panamint Valley fault: Implications for regional earthquake occurrence and seismic hazard in

southern California: *Journal of Geophysical Research – Solid Earth*, v. 5126-5146 (doi:10.1002/jgrb.50359, published online Sept. 24, 2013)

- *West, N., **Kirby E.**, Bierman, P. Slingerland, R., Ma, L., Rood, D., and Brantley, S., 2013, Regolith evolution in the Susquehanna Shale Hills Critical Zone Observatory, Part 2: Insights from meteoric ¹⁰Be: *Journal of Geophysical Research, Earth Surface*, v. 118, p. 1877-1896 (doi:10.1002/jgrf.20121, published online Sept. 17, 2013)
- Allen, G., Barnes, J., Pavelsky, T., and **Kirby, E.**, 2013, Lithologic and tectonic controls on bedrock channel form at the northwest Himalayan front: *Journal of Geophysical Research – Earth Surface*, v. 118, p. 1806-1825 (doi:10.1002/jgrf.20113, published online Sept. 12, 2013)
- Donahue, M. S., Karlstrom, K. E., Aslan, A., Darling, A., Granger, D., Wan, E., Dickinson, W., and **Kirby, E.**, 2013, Incision history of the Black Canyon of the Gunnison, Colorado, over the past ~1Ma inferred from dating of fluvial gravel deposits: *Geosphere*, v. 9, p.815-826 (doi:10.1130/GES00847.1, published online July 16, 2013)
- Ma, L., Chabaux, F., West, N., **Kirby, E.**, Jin, L., and Brantley, S., 2013, Regolith production and erosion in the Susquehanna Shale Hills Critical Zone Observatory, Part 1: Insights from U-series isotopes: *Journal of Geophysical Research, Earth Surface*, v. 118, p. 722-740 (doi:10.1002/jgrf.20037, published online May 23, 2013)
- Miller, S.R., Sak, P.B., **Kirby, E.**, and Bierman, P.R., 2013, Neogene rejuvenation of central Appalachian topography: Evidence for differential rock uplift from stream profiles and erosion rates: *Earth and Planetary Science Letters*, v. 369-370, p. 1-12.
- *Regalla, C., **Kirby, E.**, Fisher, D., 2013, Active forearc shortening in Tohoku, Japan: Constraints on fault geometry from erosion rates and fluvial longitudinal profiles: *Geomorphology*, v. 195, p. 84-98 (doi:10.1016/j.geomorph.2013.04.029, published online May 15, 2013)
- Kirby, E.** and Harkins, N., 2013, Distributed deformation around the eastern tip of the Kunlun fault: *International Journal of Earth Sciences*, v. 102, p. 1759-1772 (doi:10.1007/s00531-013-0872-x, published online March 7, 2013)
- *Wang, W., **Kirby, E.**, Zhang, P., and Zhang, G., 2013, Tertiary basin evolution along the northeastern margin of the Tibetan Plateau: Evidence for basin formation during Oligocene transtension: *GSA Bulletin*, v. 125, p. 377-400 (doi:10.1130/B30611.1, published online Nov. 21, 2012).
- Darling, A.L., Karlstrom, K.E., Granger, D.E., Aslan, A., **Kirby, E.**, Ouimet, W.B., Lazear, G.D., Coblenz, D.D., Cole, R.D., 2012, New incision rates along the Colorado River system based on cosmogenic burial dating of terraces: implications for regional controls on Quaternary incision: *Geosphere*, v. 8, p. 1020-1041.
- Kirby, E.** and Whipple, K. X, 2012, Expression of active tectonics in erosional landscapes: *Journal of Structural Geology*, v. 44, p. 54-75 [INVITED REVIEW]
- Wang, E., **Kirby, E.**, Furlong, K., van Soest, M., Xu, G., Shi, X., Kamp, P., and Hodges, K., 2012, Two-phase growth of high topography in eastern Tibet during the Cenozoic: *Nature Geoscience*, v. 5, p. 640-645
- *Morell, K., **Kirby, E.**, Fisher, D., and van Soest, M., 2012, Geomorphic and exhumational response of the Central American Volcanic Arc to Cocos Ridge subduction: *Journal of Geophysical Research*, v. 117, B04409
- Karlstrom, K., Coblenz, D., Deuker, K. Ouimet, W., **Kirby, E.**, van Wijk, J., Schmandt, B., Kelley, S., Lazear, G., Crossey, L. J., Crow, R., Aslan, A., Darling, A., Aster, R., MacCarthy, J., Hansen, S.M., Stachnik, J, Stockli, D.F., Garcia, R.V., Hofman, M., McKeon, R., Feldman, J., Heizler, M., Donahue, M.S., and the CREST working group, 2012, Mantle-driven dynamic uplift of the Rocky Mountains and Colorado Plateau and its surface response: Toward a unified hypothesis: *Lithosphere*, v.4, no. 1, p. 3-22.
- *Craddock, W., **Kirby, E.**, and Zhang, H., 2011, Late Miocene – Pliocene range growth in the interior of the northeastern Tibetan Plateau: *Lithosphere*, v. 3, no. 6, p. 420-438.
- *Hu, X., **Kirby, E.**, Pan, B., Granger, D., and Su, H., 2011, Cosmogenic burial ages reveal sediment reservoir dynamics along the Yellow River, China: *Geology*, v. 39, no. 9, p. 839-842.
- *Wang, W., Zhang, P., **Kirby, E.**, Wang, L., Zhang, G., Zheng, D., and Chai, C., 2011, A revised chronology for Tertiary sedimentation in the Sikouzi basin: Implications for tectonic evolution of the northeastern corner of the Tibetan Plateau: *Tectonophysics*, v. 505, p. 100-114.
- *Craddock, W., **Kirby, E.**, Zheng, D., 2011, Tectonic setting of Cretaceous basins on the northeastern Tibetan Plateau: Insights from the Jungong Basin: *Basin Research*, doi: 10.1111/j.1365-2117.2011.00515.x

- Zhang, H., Zhang, P., **Kirby, E.**, Yin, J., Liu, C., and Yu, G., 2011, Along-strike topographic variation of the Longmen Shan and its significance for landscape evolution along the eastern Tibetan Plateau: *Journal of Asian Earth Sciences*, v. 40, p. 855-864.
- *Hu, X., Pan, B., **Kirby, E.**, Li, Q., Geng, H., and Chen J., 2010, Spatial differences in rock uplift rates inferred from channel steepness indices along the north flank of the Qilian Mountains, northeast Tibet Plateau: *Chinese Science Bulletin*, v. 55, p. 3205 – 3214.
- *Harkins, N.W., **Kirby, E.**, Shi, X., Wang, E., Burbank, D., and Chun, F., 2010, Millennial slip-rates along the eastern Kunlun fault: Implications for the dynamics of intracontinental deformation in Asia: *Lithosphere*, v.2, p. 247-266., doi: 10.1130/L85.1.
- *Craddock, W., **Kirby, E.**, Harkins, N., Zhang, H., and Shi, X., 2010, Rapid fluvial incision along the Yellow River during headward basin integration: *Nature Geoscience*, v. 3, p. 209-213, doi:10.1038/ngeo777.
- *Regalla, C., Fisher, D., and **Kirby, E.**, 2010, Timing and magnitude of shortening within the inner fore arc of the Japan Trench: *Journal of Geophysical Research*, v. 115, doi:10.1029/2009JB006603.
- Pan, B., Su, H., Hu, Z., Hu, X., Gao, H., Li, J., and **Kirby, E.**, 2009, Evaluating the role of climate and tectonics during non-steady incision of the Yellow River: evidence from a 1.24 Ma terrace record near Lanzhou, China: *Quaternary Science Reviews*, v. 28, p. 3281-3290.
- Johnson, C. B., Furlong, K.P., and **Kirby, E.**, 2009, Integrated geomorphic and geodynamic modeling of a potential blind thrust in the San Francisco Bay area, California: *Tectonophysics*, v. 471, p. 319-328.
- Parsons, T., Ji, C., and **Kirby, E.**, 2008, Stress changes from the 2008 Wenchuan earthquake and increased hazard in the Sichuan basin: *Nature*, v. 454, doi: 10.1038/nature07177
- Burchfiel, B.C., Royden, L.H., van der Hilst, R.D., Chen, Z., King, R.W., Li, C., Lu, J., Yao, H., and **Kirby, E.**, 2008, A geological and geophysical context for the Wenchuan earthquake of 12 May 2008, Sichuan, People's Republic of China: *GSA Today*, v. 18, no. 7, doi: 10.1130/GSATG18A.1
- *Harkins, N. and **Kirby, E.**, 2008, Fluvial terrace riser degradation and determination of slip rates on strike-slip faults: An example from the Kunlun fault, China: *Geophysical Research Letters*, v. 35, L05406, doi:10.1029/2007GL033073.
- Kirby, E.**, Anadakrishnan, S., Phillips, F., Marrero, S., 2008, Late Pleistocene slip rate along the Owens Valley fault, eastern California: *Geophysical Research Letters*, v. 35, L01304, doi: 10.1029/2007GL031970.
- Frankel, K.L., Glazner, A.F., **Kirby, E.**, Monastero, F.C., Strane, M.D., Oskin, M.E., Unruh, J.R., Walker, J.D., Anadakrishnan, S., Bartley, J.M., Coleman, D.S., Dolan, J.F., Finkel, R.C., Greene, D., Kylander-Clark, A., Marrero, S., Owen, L.A., and Phillips, F., 2008, Active tectonics of the eastern California shear zone, in Duebendorfer, E.M., and Smith, E.I., eds., *Field Guide to Plutons, Volcanoes, Faults, Reefs, Dinosaurs, and Possible Glaciation in Selected Areas of Arizona, California, and Nevada: Geological Society of America Field Guide 11*, p. 43–81, doi: 10.1130/2008.fl d011(03).
- Kirby, E.**, Harkins, N., Wang, E., and Burbank, D., 2007, Slip rate gradients on the eastern Kunlun Fault: *Tectonics*, 26, TC2010, doi:10.1029/2006TC002033.
- Kirby, E.**, Johnson, C., Furlong, K., and Heimsath, A., 2007, Transient channel incision along Bolinas Ridge, California: Evidence for differential rock uplift adjacent to the San Andreas fault: *Journal of Geophysical Research, Earth Surface*, 112, F03S07, doi: 10.1029/2006JF000559.
- *Harkins, N., **Kirby, E.**, Heimsath, A., Robinson, R., and Reiser, U., Transient fluvial incision in the headwaters of the Yellow River, northeastern Tibet, China: *Journal of Geophysical Research, Earth Surface*, 112, F03S04, doi:10.1029/2006JF000570.
- *Numelin, T., **Kirby, E.**, Walker, J.D., and Didericksen, B., Late Pleistocene slip on a low-angle normal fault, Searles Valley, California: *Geosphere*, 3, pg. 163-176, doi: 10.1130/GES00052.1.
- *Numelin, T., Marone, C., and **Kirby, E.**, 2007, Frictional properties of natural fault gouge from a low-angle normal fault, Panamint Valley, California: *Tectonics*, v. 26, TC2004, doi:10.1029/2005TC001916.
- *Miller, S.R., Slingerland, R.L., and **Kirby, E.**, 2007, Characteristics of steady-state fluvial topography above fault-bend folds: *Journal of Geophysical Research, Earth Surface*, 112, F04004, doi:10.1029/2007JF000772

- Kirby E.**, Burbank, D., Phillips, F., and Reheis, M., 2006, Temporal variations in slip rate of the White Mountain Fault Zone, eastern California: *Earth and Planetary Science Letters*, v. 248, p. 168-185.
- Walker, J.D., **Kirby, E.**, and Andrew, J.A., 2005, Strain transfer and partitioning between the Panamint Valley, Searles Valley, and Ash Hill fault systems, California: *Geosphere*, v. 1, no. 3; doi: 10.1130/GES00014.1
- *Duvall, A., **Kirby, E.**, and Burbank, D., Tectonic and lithologic controls on channel profiles and processes in coastal California: *Journal of Geophysical Research: Earth Surface*, v. 109, F03002, doi:10.1029/2003JF000086
- Kirby, E.**, Whipple, K.X., Tang, W., and Chen, Z., 2003, Distribution of active rock uplift along the eastern margin of the Tibetan Plateau: Inferences from bedrock river profiles: *Journal of Geophysical Research*, v.108, 2217, doi:10.1029/2001JB000861, 2003.
- Kirby, E.**, Reiners, P.W., Krol, M.A., Hodges, K.V., Whipple, K.X., Farley, K.A., Chen, Z., and Tang, W., 2002, Late Cenozoic evolution of the eastern margin of the Tibetan Plateau: Inferences from ⁴⁰Ar/³⁹Ar and (U-Th)/He thermochronology, *Tectonics*, v. 21, 1001, doi:10.1029/2000TC001246, 2002.
- Kirby, E.** and Whipple, K.X., 2001, Quantifying differential rock-uplift rates via stream profile analysis: *Geology*, v. 29, pp. 415-418.
- Kirby, E.**, Burchfiel, B.C., Whipple, K.X., Tang, W., Berger, G., Sun, Z., and Chen, Z., 2000, Neotectonics of the Min Shan, China: Implications for mechanisms driving Quaternary deformation along the eastern margin of the Tibetan Plateau: *GSA Bulletin*, v. 112, pp. 375-393.
- Whipple, K.X., **Kirby, E.** and Brocklehurst, S.H., 1999, Geomorphic limits to climatically induced increases in topographic relief: *Nature*, v. 401, pp. 39-43.
- Kirby, E.**, Karlstrom, K.E., Andronicos, C.L., and Dallmeyer, R.D., 1994, Tectonic setting of the Sandia pluton: an orogenic 1.4 Ga granite in New Mexico: *Tectonics*, v. 14, pp. 185-201.
- Nyman, M.W., Karlstrom, K.E., **Kirby, E.**, and Graubard, C., 1994, 1.4 Ga contractional orogeny in western North America: evidence from ca. 1.4 Ga plutons: *Geology*, v. 22, pp. 901-904.

5 Refereed Book Chapters

- Kirby, E.** and Ouimet, W., 2011, Tectonic geomorphology along the eastern margin of Tibet: Insights into the pattern and processes of active deformation adjacent to the Sichuan Basin, *in*, Gloaguen, R. and Ratschbacher, L., eds., *Growth and Collapse of the Tibetan Plateau*: Geological Society, London, Special Publications, v. 353, p. 165-168. doi: 10.1144/SP353.9.
- Koons, P. and **Kirby, E.**, 2007, Topography, Denudation, and Deformation: The role of surface processes in fault evolution, *in*, Handy, M.R., Hirth, G., and Hovius, N., eds., *Tectonic Faults: Agents of Change on a Dynamic Earth*, MIT Press, Cambridge, MA., pg. 205-230.
- Buck, W.R., Densmore, A.L., Fredrich, A.F., Hovius, N., **Kirby, E.**, Koons, P.O., Nagel, T., Schlunegger, F., Strecker, M., and von Blanckenburg, F., 2007, Environmental Effects of Faulting, *in*, Handy, M.R., Hirth, G., and Hovius, N., eds., *Tectonic Faults: Agents of Change on a Dynamic Earth*, MIT Press, Cambridge, MA., p. 273-294.
- Wobus, C., Whipple, K., **Kirby, E.**, Snyder, N., Johnson, J., Spyropolou, K., Crosby, B., Sheehan, D., 2006, Tectonics from Topography: Procedures, promise, and pitfalls, *in*, Willett, S.D., Hovius, N., Brandon, M.T., and Fisher, D., eds., *Tectonics, Climate, and Landscape Evolution*: Geologic Society of America Special Paper 398, p. 55-74, doi:10.1130/2006.2398(04).
- Clift, P.D., Carter, A., Krol, M., and **Kirby, E.**, 2002, Constraints on India-Eurasia collision in the Arabian Sea region taken from the Indus Group, Ladakh Himalaya, India, *in*, Clift, P.D., Kroon, D., Gaedicke, C. and Craig, J., eds., *The Tectonic and Climatic Evolution of the Arabian Sea Region*: Geological Society, London, Special Publications, v. 195, p. 97-116.

12 Other Articles (commentary, invited submissions, and field trip guides)

- Kirby, E.**, 2018, Global erosion by glaciers revisited: *Nature*, v.559, p.34-35.
- Kirby, E.** and McDonald, E., 2016, Friends of the Pleistocene, Pacific Cell 2016 Field Trip – Panamint Valley, CA, 76 p.

- Karlstrom, K.E., Darling, A., Crow, R., Lazear, G., Aslan, A., Granger, D., **Kirby, E.**, Crossey, L. and Whipple, K., 2013, Colorado River chronostratigraphy at Lee's Ferry, Arizona, and the Colorado Plateau bull's-eye of incision (COMMENT): *Geology*, e303 (doi:10.1130/G34550C.1)
- Kirby, E.**, 2012, Tectonically twisted rivers: *Nature Geoscience*, v. 5, p. 688-698.
- *West, N., **Kirby, E.**, Bierman, P., and Rood, D., 2011, Preliminary estimates of regolith generation and mobility in the Susquehanna Shale Hills Critical Zone Observatory, PA, using meteoric ¹⁰Be: Applied Geochemistry (extended abstract associated with 9th International Symposium on Geochemistry of the Earth Surface).
- Kirby, E.**, Whipple, K.X., and Harkins, N., 2008, Topography reveals seismic hazard: *Nature Geoscience*, v. 1, p. 485-487, doi: 10.1038/ngeo265.
- Duvall, A., **Kirby, E.**, and Burbank, D.W., 2004, Discussion of bedrock channels with the Santa Ynez Mountains: El Capitan Canyon: 2004 *Friends of the Pleistocene Guidebook: Santa Barbara Fold Belt and Beyond*, eds., Gurrola, L. and Keller, E., 12p.
- Niemann, J.D. and **Kirby, E.**, 2003, Geomorphology: *Geotimes* Annual Highlights Issue, v. 48, no. 7, p. 14-15.
- Kirby, E.**, Karlstrom, K.E., and Andronicos, C.L., 1995, Structural and thermal setting during emplacement of the Sandia pluton: New Mexico Geological Society Guidebook 46, pp. 219-225.
- Karlstrom, K.E., **Kirby, E.**, Connell, S., Read, A.S., Ferguson, C., Osburn, G.R., Ilg, B., Abbott, J., Hitchcock, C., Kelson, K., Noller, J., Sawyer, T., Bauer, P., Ralser, S., Love, D., and Nyman, M., 1994 (latest revision: 22, September, 1999), Geology of the Tijeras 7.5-min quadrangle, Bernalillo County, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Open-file Digital Geologic Map OF-DGM 4, scale 1:24,000.
- Read, A.S., Connell, S., Karlstrom, K.E., **Kirby, E.**, Ferguson, C., Ilg, B., Pazzaglia, F., Osburn, G.R., Van Hart, D., 1995 (latest revision: 20 September, 1999) Geology of the Sandia Crest quadrangle, Bernalillo and Sandoval Counties, New Mexico, Open-file Digital Geologic Map OF-DGM 6: New Mexico Bureau of Mines and Mineral Resources, scale 1:24,000.
- Timmons, J.M., Karlstrom, K.E., and **Kirby, E.**, 1995, Geology of the Monte Largo Hills area, New Mexico: Structural and metamorphic study of the eastern aureole of the Sandia pluton: New Mexico Geological Society Guidebook 46, p. 227-232.

3 Research reports to sponsor

- Dolan, J.F. and **Kirby, E.**, 2010, Paleoseismic evidence for late Holocene earthquakes on the Southern Panamint Valley fault zone: Implications for earthquake clustering in the Eastern California Shear Zone north of the Garlock fault: 2010 Annual SCEC report, 9 p.
- Kirby, E.** and Burbank, D., 2006, Rates of vertical deformation above blind and poorly exposed faults: Developing a geomorphic tool for hazards analysis: Final Technical Report to USGS National Earthquake Hazards Reduction Program, Award Number 03HQGR0038.
- Walker, J.D., Andrew, J.A., Kamola, D.L., and **Kirby, E.**, 2003, An integrated study of the Slate Range Crossing Tectonic Zone: Final report to the Geothermal Program Office of the U.S. Navy, 76 p.

Vision/White Papers

- Contributor to Huntington, K.W. and Klepeis, K.A. *Challenges and Opportunities for Research in Tectonics: Understanding deformation and the processes that link Earth systems, from geologic time to human time*, A community vision document submitted to the National Science Foundation, 2018

Manuscripts submitted for publication

- *Rohrman, A., **Kirby, E.**, Schwanghart, W., Accelerated Miocene incision along the Yangtze River during drainage basin expansion: *Science Advances*, IN REVISION
- Rittase, W.M., Walker, J.D., Andrew, J.E., **Kirby, E.**, and Wan, E., Pliocene-Pleistocene basin evolution along the Garlock fault zone, Pilot Knob Valley, California: *Geosphere*
- Su, P., He, H., Tan, X., Shi, F., Liu, Y., and **Kirby, E.**, Initiation and evolution of the Shanxi Rift System in North China: Evidence from low-temperature thermochronology: *Geological Society of America Bulletin*
- Kirby vitae – 02/04/20

Manuscripts in preparation

- Hodges, K.V., Whipple, K.X., **Kirby, E.**, Arrowsmith, J.R., and Shirazei, M., The coupled evolution of orogenic plateaus and adjacent orogenic wedges: *Nature Geoscience*
- Meghani, N. and **Kirby, E.**, Quantifying shortening rates on growing folds in the Himalayan foreland from geomorphic analyses: *Geology*
- Sheehan, T.P., Dawers, N.H., **Kirby, E.**, and Robinson, R., Quantifying distributed extensional strain rate across northern Owens Valley, California: *Lithosphere*
- Kirby, E.**, Regalla, C., Ouimet, W., Bierman, P., Quantifying temporal variations in fault slip from footwall topography: *Journal of Geophysical Research*
- *Hoffman, W., **Kirby, E.**, McDonald, E., Gosse, J., Walker, J.D., and Rittase, W., Late Pleistocene slip rate along the southern Panamint Valley fault zone, eastern California: *Tectonics*

FUNDED GRANTS AND CONTRACTS

In Progress

- NSF Tectonics (2020 – 2021) \$21K
REU SUPPLEMENT: *Collaborative Research: Evaluating the contribution of crustal deformation to the present-day tectonics of convergent margins: the southern Cascadia forearc*
- NSF Tectonics (2018 – 2021) \$236K
Collaborative Research: Evaluating the contribution of crustal deformation to the present-day tectonics of convergent margins: the southern Cascadia forearc
(Collaborative with M. Michilak, S. Cashman, and K. Furlong)

Completed

- NSF Tectonics, GLD, and OISE (2016 – 2018) \$97K
Support for a U.S.-Taiwan workshop on the Feedbacks Among Climate, Erosion, and Tectonics
- NOAA/OR Sea Grant (2017 – 2018) \$49K
Retrodicting earthquake source characteristics from tsunami inundation along the Oregon coast
(Collaborative with A. Meigs, G. Wilson, and B. Mason)
- NSF Critical Zone Observatory (2014 – 2019) \$20K
Using the Susquehanna-Shale Hills CZO to project from the geological past to the Anthropocene future
(Collaborative with S. Brantley, K. Davis, C. Duffey, D. Eissenstat, and L. Li)
- NSF Earthscope (2013 – 2016) \$168K
Collaborative Research: Mantle Dynamics, Lithospheric Structure, and Topographic Evolution of the Southeastern US Continental Margin
(Collaborative with M. Long, S. King, and M. Benoit)
- NSF Critical Zone Observatory (2012 – 2013) \$1M
An accomplishment based request for renewal of the Susquehanna-Shale Hills Critical Zone Observatory (SSHO)
(Collaborative with S. Brantley, D. Eissenstat, and C. Duffy)
- NSF Tectonics EAGER (2011 – 2013) \$102K
Upper plate response to a great earthquake: Integrating deformation from seismic to geologic timescales
(Collaborative with K. Furlong, D. Fisher)
- NSF Tectonics (2009 – 2013) \$460K
Probing the Rheology of Tibetan Lithosphere: Surface Deformation in Response to Climatically-Induced Changes in Lake Loads
(Collaborative with K. Furlong)
- NSF Tectonics (2008 – 2012) \$335K
Inner forearc deformation along an erosive convergent margin, Northeastern Japan
(Collaborative with D. Fisher and K. Furlong)

NSF Critical Zone Observatory (2008 – 2013) \$4.5M

Regolith and the critical zone in the Susquehanna River Basin

(Collaborative with C. Duffy and 10 co-PIs)

NSF Continental Dynamics (2007 – 2012) \$200K

Colorado Rockies Seismic Experiment and Transect (CREST): Time-space patterns of Cenozoic uplift-magmatism and their correspondence to the Aspen Anomaly

(Collaborative with K. Deuker, R. Aster, L. Crossey, M. Heizler, K. Karlstrom, S. Kelley, and C. Shaw)

SCEC (2010-2012) \$80K

Holocene paleoseismicity of the southern Panamint Valley fault zone: Evaluating seismic clustering along the Eastern California Shear Zone north of the Garlock fault

(Collaborative with J. Dolan)

NSF Tectonics (2009 – 2011) \$186K

Mechanics and seismogenic potential of low-angle normal faults: A field and laboratory investigation

(Collaborative with D. Saffer, C. Marone)

NSF Continental Dynamics (2005 – 2011) \$334K

Upward and Outward: Growth of the Tibetan Plateau and climatic consequences

(Collaborative with P. Molnar, D. Burbank, M. Clark, K. Farley, C. Garzione, and G. Roe)

NSF Earthscope (2007 – 2010) \$136K

How is strain of the Eastern California Shear Zone transferred across the Garlock Fault

(Collaborative with J. Doug Walker)

NSF Tectonics (2/15/03 – 1/31/08) \$248K + \$8K REU

Extrusion and rotation during intracontinental deformation: the role of the Kunlun Fault in the Indo-Asian collision

(Collaborative research w/ D. Burbank)

NSF Tectonics (7/1/04 – 6/30/08) \$157K

Reconciling Geologic and Geodetic Rates of Deformation: The Role of Distributed Strain in the Upper Crust

(Collaborative w/ N. Dawers, D. Burbank)

NSF Tectonics/SGER (5/15/03 – 4/30/05) \$15K

Fluvial incision rates in the Three Gorges of the Yangtze River

NASA (1/1/03 – 12/31/05) \$40K

Tectonic-climatic interactions in orogenic belts: Quantification of the approach to steady-state topography with SRTM data

(Collaborative research w/ D. Burbank)

USGS NEHERP (1/1/03 – 12/31/03) \$13K

Rates of vertical deformation above blind and poorly exposed faults: developing a geomorphic tool for hazards analysis

(Collaborative research w/ D. Burbank)

US Navy (1/1/02 – 7/1/02) \$7K

Integrated study of the Slate Range Crossing Tectonic Zone

(Subcontract with University of Kansas, P.I. – J. Doug Walker)

NSF Earth Sciences Postdoctoral Fellowship (1/1/01 – 6/15/02) \$72K

Displacement rates and paleoseismicity of the Eastern Kunlun Fault: Implications for the dynamical role of strike-slip faults during intracontinental deformation

TEACHING AND INSTRUCTION

Courses Taught (Y indicates taught yearly or every second year, L indicates laboratory exercise)
(* indicates material developed by E. Kirby)

Oregon State University

Geo 100 *Natural Disasters: Hollywood versus reality (Y, L)
Geo 340 *Structural Geology (Y, L)
Geo 495 Advanced Field Geology
Geo 537 *Tectonic Geomorphology (Y)
Geo 599/699 *Isotopes and Erosion Rates (Y)
Geo 599/699 *Field investigations of active faults (co-taught with A. Meigs)
Geo 599/699 *Basin Analysis (co-taught with R. Harris)

Penn State University

Geosc 340	*Geomorphology (Y, L)	Geosc 597	*Paleoelevation in mountain belts
Geosc 472	Field School (Y)	Geosc 597	*Isotopes and erosion rates
Geosc 402	Natural Disasters (Y, L)	Geosc 597	*Strain reconstruction in orogens
Geosc 500	Issues in Geosciences	Geosc 597	*Active tectonics
Geosc 548	Advanced Surface Processes (Y)	Geosc 597	*Evolution of Taiwan
Geosc 565	*Tectonic Geomorphology (Y)	Geosc 598	*Critical Zone surface processes

SUPERVISION OF STUDENT RESEARCH

Penn State University (2002 – 2015)

Ph.D. degree

2009 Nathan Harkins - *Millennial slip-rates along the eastern Kunlun fault and rapid evolution of channel morphology in the Yellow River headwaters, northeastern Tibet, China*
2011 William Craddock - *Structural and geomorphic evolution of the Gong He basin complex, northeastern Tibet*
2013 Christine Regalla – *Deformational response of the Japanese forearc to temporal changes in plate boundary dynamics* (co-advised with D. Fisher)
2014 Nicole West – *Regolith evolution in the Shale Hills Critical Zone Observatory*
2014 Xuhua Shi – *Probing the rheology of Tibetan lithosphere*

M.S. degree

2005 Tye Numelin - *Slip rates on an active low-angle normal fault, Searles Valley, California*
2006 Charlie Angerman - *Rates and timing of shortening at the northeastern margin of Tibet*
2007 Andrea Mullen - *Calibrating post-glacial fluvial incision, Finger Lakes region, New York State*
2009 William Hoffman - *Slip rates along the Panamint Valley fault zone, eastern California*
2009 Christine Regalla – *Neogene uplift inboard of the Japan Trench and implications for the mass balance of the northeastern Japan margin* (co-advised with D. Fisher)
2011 Shi Xuhua - *Geomorphic response to evolution of a transcurrent plate boundary, northern California*
2013 Russell Rosenberg – *Fluvial incision along the western slope of the Colorado Rockies*
2015 Nooreen Meghani – *Uplift and shortening in the Nepalese and Indian Sub-Himalaya determined from quantitative geomorphology*

B.S. degree

2004 Aaron Bini - *Reconciling discrepancies between measured fault slip rates and GPS modeled fault slip rates in Owens Valley, CA*
2005 Kimberly Kline - *Relationships between erosion rate and landscape relief in the Anyemaqen Shan, eastern Tibet*
2005 Keith Trasko - *Tectonic implications of stream profiles in the Fila Costena fold and thrust belt, Pacific Coast, Costa Rica* (co-advised with D. Fisher)
2006 Matthew Rogers - *Fluvial Incision in the Upper Reaches of the Yellow River, China* (Honors thesis)
2006 Matthew Rogers - *Long-term slip rate on the Owens Valley fault, California*
2009 Adam Donovan - *The geomorphic signature of active deformation in the Himalayan foreland*
2013 Alex Neeley – *Characterizing the recent Cenozoic erosional history of the Appalachian Mountains through spatial variations in stream profile metrics across the Alleghany Front*

2013 Matt Potako – *Correlating river steepness with erosion rates along the Sri Lankan escarpment*

Oregon State University (2013 – present)

Ph.D. degree

Current Pichawut Manopkawee

Current Katherine Worms

Current George Snyder

M.S. degree

2016 Na Hyung Choi – *Late Pleistocene slip rate along the Panamint Valley fault system, eastern California*

2018 Wesley von Dassow – *Geomorphic evidence for differential rock uplift across the southern Cascadia forearc*

2019 Israporn (Grace) Sethanant – *Late Holocene earthquake history recorded in alluvial fan sequences, Panamint Valley, California*

Post-Doctoral researchers supported

Dr. William Ouimet (2007 – 2008) – now Assistant Professor at University of Connecticut

Dr. Brian Clarke (2012 – 2014)

Dr. Scott Miller (2014) – now Research Professor at the University of Utah

Dr. Alexander Rohrmann (Alexander von Humboldt Foundation Fedor Lynen Postdoctoral Fellow – 2016 - 2018)

Visiting International Students and Scientists

2009 – 2010 Hu Xiaofei – Ph.D., Lanzhou University (co-advised with Pan Baotian)

2010 – 2011 Wang Weitao – Ph.D., Institute of Geology, China Earthquake Administration (co-advised with Zhang Peizhen)

2013 – 2014 He Zhongtai – Ph.D. student from Institute of Crustal Dynamics, China Earthquake Administration

2014 – 2015 Yu Jingxing – Ph.D. student from Institute of Geology, China Earthquake Administration

2014 – 2015 Hu Xiaofei – Associate Professor from Lanzhou University, China

2015 – 2016 Li Kang – Ph.D. student from Institute of Geology, China Earthquake Administration

2016 – 2017 Wang Yizhou – Ph.D. student from Institute of Geology, China Earthquake Administration

2017 – 2018 Qi Su – Ph.D. student from School of Earth Science and Engineering, Nanjing University

2017 – 2018 Peng Su – Ph.D. student from Institute of Geology, China Earthquake Administration

2018 – 2019 Zhang Bin – Ph.D. student from Institute of Geology and Geophysics, China Academy of Science

2019 – present Tian Qingying – Ph.D. student from Sun Yat Sen University, Guangzhou

2019 – present Hu Wang – Associate Professor from Chengdu Institute of Technology

Advising at other institutions

2002 Jessica Jager – M.S. UCSB - *Patterns of Quaternary deformation in the Waucobi embayment, Owens Valley, California* (co-advised with D. Burbank)

2003 Alison Duvall – M.S. UCSB - *Bedrock channel response to variability in rock strength and rock-uplift rate in the Santa Ynez Mountains, California* (co-advised with D. Burbank)

2010 Andy Darling – M.S. UNM (external committee member)

2013 George Allen – M.S. UNC, Chapel Hill (external committee member)

2017 Laura Airaghi – Ph.D., University of Grenoble, France (external thesis committee examiner)

2018 Matthew Morris – Ph.D., University of Oregon (external committee member)

2018 Cody Paige – Ph.D., Dalhousie University (external committee member)

WORKSHOPS/SEMINAR PARTICIPATION

- Invited plenary lecture – 2016 IRIS Subduction Zone Observatory Workshop (lecture title: *Surface processes and subduction zones*)
- Invited keynote – 2015 CIDER Pre-AGU Workshop, Berkeley CA (lecture title: *Surface deformation in the Appalachian orogeny during the Late Cenozoic*)
- Invited lecturer – 2015 CIDER Workshop, Berkeley CA (lecture title: *Decoding the record of uplift and erosion in landscape topography*)
- Invited keynote – 2013 IGCP 581 Workshop on Tectonics, landscape and the river systems of Asia (talk title: *Oligocene mountain building in eastern Tibet: Initial growth of the Tibetan Plateau?*)
- Invited keynote – 2013 Roof of the World: 1st joint meeting between Geological Society of America and Geological Society of China (talk title: *Active deformation and mountain building in eastern Tibet*)
- Invited speaker – 2012 NSF EarthCube End User Workshop, Structural Geology and Tectonics (talk title: *Measuring the pace of lithospheric deformation: Challenges and opportunities*)
- Invited participant – 2010 NSF MARGINS Science Planning Workshop (co-convened breakout session on Climate, Erosion, Tectonics)
- Invited speaker – 2009 NSF Earthscope Science Planning Workshop (talk title: *Geomorphology and Earthscope: Landscape evolution in the service of geodynamics*)
- Invited speaker – 2009 INSTOC Workshop (Cornell University) on Why Mountains? Tales and timescales of their birth and death (talk title: *Mountain building in northeastern Tibet associated with the tip of the Kunlun fault*)
- Invited keynote – 2009 5th International Conference on the Tibetan Plateau/24th Himalaya-Karakorum-Tibet Workshop, Beijing (talk title: *Geomorphic constraints on the pattern of active deformation in eastern Tibet: A role for flow in the lower crust?*)
- Invited keynote – 2009 GSA Field Forum: Structure and Neotectonic Evolution of Northern Owens Valley and the Volcanic Tableland, California (talk title: *Neotectonics along the Owens Valley: Recent progress and outstanding questions*)
- Invited speaker – 2008 Southern California Earthquake Center, Fault System Evolution/SoSAFE workshop (talk title: *Late Pleistocene slip rate along the Owens Valley fault*)
- Invited speaker – 2007 Bi-lateral workshop on the evolution of the Asian Monsoon and growth of the Tibetan Plateau (talk title: *Late Cenozoic growth of eastern Tibet: Patterns, processes, and key unknowns*)
- Invited speaker – 2006 International Conference on Continental Dynamics and Environmental Change of the Tibetan Plateau (talk title: *Slip-rate gradients along the eastern Kunlun fault*)
- Keynote speaker – 2005 GSA Penrose Conference: Kinematics and Geodynamics of Intraplate Dextral Shear in Eastern California and Western Nevada (talk title: *Tectonics from Topography*)
- Invited participant – 2005 Dahlem Conference (Berlin, Germany): The Dynamics of Faulting
- Keynote speaker – 2003 GSA Penrose Conference: Tectonics, Climate, and Landscape Evolution (talk title: *Channel Response to Differential Rock Uplift*)

INVITED COLLOQUIA LECTURES

- November 2019 – Portland State University: *Decoding the record of uplift and erosion in landscape topography*
- February 2018 – Earth Observatory of Singapore, Nanyang Technological University: *Decoding the record of uplift and erosion in landscape topography*
- October 2017 – University of Grenoble: *Decoding the record of uplift and erosion in landscape topography*
- March 2017 – Alexander von Humboldt Foundation Colloquium: *Tectonic and climatic interactions during growth of the Tibetan Plateau*
- March 2017 – National Taiwan Normal University: *Geomorphic evidence for co-seismic slip along an active low-angle normal fault in Panamint Valley, CA*
- March 2017 – National Taiwan University: *Late Cenozoic landscape evolution in the Colorado Rockies: Elucidating the role of buoyant mantle in differential rock uplift*
- March 2017 – Tulane University: *Geomorphic evidence for co-seismic slip along an active low-angle normal fault in Panamint Valley, CA*
- February 2017 – University of California, Davis: *Geomorphic evidence for co-seismic slip along an active low-angle normal fault in Panamint Valley, CA*
- January 2017 – University of Colorado, Boulder: *Geomorphic evidence for co-seismic slip along an active low-angle normal fault in Panamint Valley, CA*
- June 2016 – National Chung Cheng University, Chaiyi, Taiwan: *Geomorphic insights into the patterns and processes of active deformation in Tibet*
- June 2016 – Academia Sinica, Taipei, Taiwan: *Geomorphic insights into the patterns and processes of active deformation in Tibet*
- February 2016 – University of South Florida: *Geomorphic insights into the patterns and processes of active deformation in Tibet*
- October 2015 – University of Southern California: *Geomorphic insights into the patterns and processes of active deformation in Tibet*
- March 2014 – University of Oregon: *Mountain building in the Longmen Shan: Geomorphic constraints on deformation from seismic to geologic timescales*
- February 2014 – China Earthquake Administration, Institute of Geology: *Mountain building in the Longmen Shan: Geomorphic constraints on deformation from seismic to geologic timescales*
- February 2014 – China Earthquake Administration, Institute of Crustal Dynamics: *Mountain building in the Longmen Shan: Geomorphic constraints on deformation from seismic to geologic timescales*
- February 2014 – Chinese Academy of Sciences, Institute of Tibetan Plateau Research: *Probing the rheology of Tibetan crust: Shoreline deformation around Siling Co in response to lake-level fluctuations*
- January 2014 – Portland State University: *Growth of high topography in eastern Tibet: Geomorphic insights into the geodynamics of mountain building*
- November 2013 – Oregon State University: *Decoding the imprint of tectonics on landscape topography: Recent progress and future challenges*
- April 2013 – Utrecht University (Umbgrove Lecture): *Growth of the Tibetan Plateau: Linking active deformation, rheology and mountain building*
- July 2012 – Potsdam University (SMURF seminar): *Episodic growth of topography in Eastern Tibet*
- May 2012 – Yale University: *Episodic growth of topography in Eastern Tibet*
- April 2012 – University of North Carolina, Chapel Hill: *Topographic expression of tectonics in active orogens*
- March 2012 – Syracuse University: *Episodic growth of high topography in Eastern Tibet*
- November 2011 – University of Colorado, Boulder: *When did the Tibetan Plateau develop?*
- June 2011 – GeoForschungsZentrum (GFZ) Potsdam, Germany: *Geomorphology of erosional landscapes: A guide to interpreting tectonics in active orogens*
- April 2011 – Technische Universität Bergakademie Freiberg, Germany: *Expression of active tectonics in erosional landscapes*
- January 2011 – Ludwig-Maximilians University, Munich: *Topography in active mountain ranges: Geomorphic insights into the rates and patterns of deformation*

December 2010 – University of Potsdam: *Termination of slip along the eastern Kunlun fault: Geomorphic insights into the mechanics of intracontinental deformation*

November 2010 – Oxford University: *Slip-rate variations along the Kunlun fault: Implications for the mechanics of deformation in northeastern Tibet*

April 2010 – China Earthquake Administration (Beijing): *Patterns of active deformation in eastern Tibet: Insights from geomorphology and exhumation*

April 2010 – Lanzhou University: *Transient incision along the Yellow River in response to basin integration*

February 2009 – University of Vermont: *Reading signatures of active tectonics in landscape topography.*

October 2008 – Dickinson College: *Tectonic and geomorphic context of the great Sichuan earthquake.*

November 2007 – Lehigh University: *A Tale of Two Rivers: Fluvial incision in the headwaters of the Yellow and Yangtze Watersheds.*

July 2007 – China Earthquake Administration (Lanzhou, Gansu Province): *Slip-rate gradients along the eastern Kunlun fault.*

April 2007 – University of Wyoming: *Patterns and Process of Fluvial Incision: The role of tectonics in landscape evolution.*

April 2007 – Hamilton College: *Landscapes and Active Deformation: Insights into fault behavior from geomorphic records.*

July 2006 – China Earthquake Administration, Institute for Geology (Beijing): *Slip-rate gradients along the eastern Kunlun fault.*

January 2006 – University of Rochester: *Tectonics from topography: Reading the landscape record.*

May 2005 – Stanford University: *Reading the record of earth deformation in the landscape.*

April 2004 – Texas A&M University: *Bedrock channel response to differential rock uplift.*

March 2004 – Cornell University: *Tectonics from topography: Bedrock channel response to differential rock uplift.*

February 2004 – Tulane University: *Tectonics and topography in eastern Tibet.*

April 2002 – University of Kansas: *Stream gradients, exhumation, topography, and rock uplift: Patterns and processes of topographic evolution in eastern Tibet.*

May 2001 – University of California, Berkeley: *Building a plateau: Tectonics and topography in Eastern Tibet.*

April 2001 – Franklin and Marshall College: *Active mountain building in East Tibet: A consequence of lower crustal flow?*

CONFERENCE PROCEEDINGS

*Papers presented at professional meetings (*denotes student/postdoc author)*

1. **Kirby, E.**, Furlong, K.P., Aslan, A., Karlstrom, K.E., and Granger, D.E., 2019, Timing and duration of incision along the Colorado River near Rifle, CO suggest a tectonic driver for post-10 Ma landscape evolution: Geological Society of America *Abstracts with Programs*, v. 51, No. 5, doi: 10.1130/abs/2019AM-338250.
2. **Kirby, E.**, Furlong, K., McKenzie, K., Sethanant, I., and Walker, J.D., 2019, Preliminary assessment of static stress changes along low-angle detachment faults in Panamint and Searles Valleys: Geological Society of America *Abstracts with Programs*, v. 51, No. 5, doi: 10.1130/abs/2019AM-342021.
3. **Kirby, E.**, McDonald, E., Gosse, J., Walker, J.D., 2019, Integrating soil characteristics and cosmogenic nuclide dating in the study of active faults: Examples from the southwestern Basin and Range: *20th Congress of the International Union for Quaternary Research (INQUA)*, O-1066.
4. **Kirby, E.** and Miller, S.R., 2017, The geomorphic signature of mantle flow: A 'great' challenge for tectonics: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-307341. (INVITED)
5. **Kirby, E.**, Zhang, H., and Jie, C., 2017, River profiles and patterns of fluvial incision record deformation in the deep crust along the eastern margin of Tibet: Canadian Geophysical Union Joint Assembly. (INVITED)
6. **Kirby, E.**, Gosse, J., McDonald, E., and Walker, J.D., 2017, Geomorphic evidence for co-seismic slip on an active low-angle normal fault: Panamint Valley, California: Canadian Geophysical Union Joint Assembly.
7. **Kirby, E.**, 2017, Spatial variations in fluvial incision across the eastern margin of Tibet reveal locus of deformation in the deep crust: Geophysical Research Abstracts, v. 19, EGU2017-4113 (INVITED)
8. **Kirby, E.**, McDonald, E., Gosse, J., and Walker, J.D., 2016, Co-seismic slip along an active low-angle normal fault: Tectonic geomorphology of the Panamint Valley fault system, California: Asia Oceania Geosciences Society 2016 Annual Meeting, SE02-A026 (INVITED)
9. **Kirby, E.**, Zhang, H., and Chen, J., 2016, Spatial variations in fluvial incision across the eastern margin of Tibet reveal locus of thickening in the deep crust: Geophysical Research Abstracts, v. 18, EGU2016-5194. (INVITED)
10. **Kirby, E.**, McDonald, E., Walker, J.D., and Gosse, J., 2014, Geomorphic evidence for co-seismic slip along an active low-angle normal fault: Panamint Valley, California: Geological Society of America *Abstracts with Programs*, v. 46, no. 6, p. 662. (INVITED)
11. **Kirby, E.**, Furlong, K.P., Cook, K., Ouimet, W., Shi, X., Wang, E., Kamp, P.J.J., Hodges, K.V., 2013, On the extent and significance of Oligocene mountain building in eastern Tibet: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T22E-01. (INVITED)
12. **Kirby, E.**, Furlong, K., Shi, X., Kamp, P., and Wang, E., 2013, Oligocene mountain building in eastern Tibet: Initial growth of the Tibetan Plateau?: *IGCP 581 Evolution of Asian River Systems*
13. **Kirby, E.**, Aslan, A., Karlstrom, K.E., Rosenberg, R., Kelley, S., and Heizler, M., 2013, Late Cenozoic landscape evolution along the western slope of the Colorado Rockies: A role for differential rock uplift driven by buoyant mantle: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 190. (INVITED)
14. **Kirby, E.**, Aslan, A., Rosenberg, R., Kelley, S., Karlstrom, K.E., and Furlong, K.P., 2013, New constraints on the timing and rates of incision along the Colorado River near Rifle, CO: Implications for drivers of late Cenozoic landscape evolution: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 634.
15. **Kirby, E.**, 2013, Active deformation and mountain building in eastern Tibet: *Acta Geologica Sinica*, v. 87(z1): 354-355. (INVITED)
16. Shi, X., **Kirby, E.**, Furlong, K.P., Meng, K., Wang, E., Robinson, R., and Lu, H., 2013, Determining crustal strength from shoreline deformation, central Tibet: *Acta Geologica Sinica*, v. 87(z1): 151-152.
17. **Kirby, E.**, 2013, Reading the signal of tectonics in landscape topography: Challenges and opportunities: *Geophysical Research Abstracts*, v. 15, EGU2013-11963. (INVITED)
18. Furlong, K.P. and **Kirby, E.**, 2013, Reconstructing the growth of high topography across eastern Tibet in space and time: *Geophysical Research Abstracts*, v. 15, EGU2013-11938.
19. **Kirby, E.**, Furlong, K., Wang, E., Shi, X., Van Soest, M., Xu, G., Kamp, P., and Hodges, K.V., 2012, Episodic growth of topography in Eastern Tibet: *Geophysical Research Abstracts*, v. 14, EGU2012-3447.
20. **Kirby, E.**, Wang, E., Van Soest, M., Xu, G., Furlong, K., Kamp, P., Hodges, K.V., and Shi, X., 2011, When did the eastern Tibetan Plateau become elevated?: Geological Society of America *Abstracts with Programs*, v. 43, no. 5, p. 149.

21. **Kirby, E.**, Regalla, C., Ouimet, W.B., and Bierman, P.R., 2010, Reconstructing temporal variations in fault slip from footwall topography: An example from Saline Valley, California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP44A-05 (INVITED)
22. **Kirby, E.** and Harkins, N., 2010, Strain localization versus distributed deformation along strike-slip faults in eastern Tibet: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T33F-08 (INVITED)
23. **Kirby, E.**, McDonald, E., Gosse, J., Rittase, W., Hoffman, W., and Walker, J., 2010, On the utility of integrating soil characteristics with radiometric dating in the study of active faults: An example from eastern California: *Geologic Society of America Abstracts with Programs*, v. 42, no. 5, p. 522. (INVITED)
24. **Kirby, E.** and Ouimet, W.B., 2009, From earthquakes to mountains: Geomorphic constraints on the pattern of active deformation in eastern Tibet, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T24B-03 (INVITED)
25. **Kirby, E.**, 2009, Geomorphic constraints on the pattern of active deformation in eastern Tibet: A role for flow in the lower crust?: Joint Meeting of the 5th International Conference on the Tibetan Plateau and the 24th Himalaya-Karakorum-Tibet Workshop, Beijing (INVITED KEYNOTE)
26. **Kirby, E.**, 2009, Patterns of active surface deformation along the eastern margin of the Tibetan Plateau: A role for flow in the lower crust?: EGU General Assembly (INVITED)
27. **Kirby, E.**, 2008, Geomorphic insights into the growth of eastern Tibet and implications for the recurrence of great earthquakes: EOS (American Geophysical Union Transactions), 2008 Fall Meeting (INVITED)
28. **Kirby, Eric**, Walker, D., Reheis, M., Phillips, F., and Burbank, D., 2008, Pace and tempo of deformation in Eastern California over the past 3 Ma: Implications for the geodynamic evolution of right-lateral shear along the western margin of the Basin and Range: *Geologic Society of America Abstract with Programs*, v. 40., no. 6, 263-6. (INVITED)
29. **Kirby, E.**, Craddock, W., and Harkins, N., 2007, Transient incision of the Yellow River: A response to drainage basin integration across the northeastern margin of the Tibetan Plateau: EOS (American Geophysical Union Transactions), 2007 Fall Meeting
30. **Kirby, E.** and Greene, D., 2007, Temporal variations in fault slip revealed by stream profile analysis: An example from Saline Valley, California: *Geologic Society of America Abstract with Programs*, v. 39., no. 6, pg. 262.
31. **Kirby, E.**, 2007, Late Cenozoic growth of the eastern Tibetan Plateau: Patterns, processes and key unknowns: China-USA Bi-lateral workshop on Evolution of the Asian Monsoon and desertification and growth of the Tibetan Plateau (INVITED)
32. **Kirby, E.**, 2006, Slip rate gradients and the termination of the eastern Kunlun fault: Implications for the mechanics of intracontinental deformation: EGU Annual Meeting (INVITED)
33. **Kirby, E.** and Goldstein, E., 2004, Testing models of fluvial incision under conditions of differential rock uplift: EOS (American Geophysical Union Transactions), 2004 Fall Meeting.
34. **Kirby, E.**, Walker, J D., McDonald, E. and Gosse, J., 2004, Late Quaternary to Recent slip on a low-angle normal fault: Inferences from alluvial deposits along the Panamint Valley fault system: Geological Society of America Annual Meeting
35. **Kirby, Eric**, Snyder, Noah, Whipple, Kelin, Walker, J Doug, and Andrew, Joe, 2003, Neotectonics of the Panamint Valley fault zone: Active slip on a low-angle normal fault system: EOS (American Geophysical Union Transactions), 2003 Fall Meeting
36. *Harkins, N., **Kirby E.**, Burbank, D., and Wang, E., 2003, Displacement gradients on the eastern Kunlun Fault: Implications for the kinematics of deformation in Tibet: EOS (American Geophysical Union Transactions), 2003 Fall Meeting
37. **Kirby, E.**, 2002, How does the Kunlun Fault end?: EOS (American Geophysical Union Transactions), 2002 Fall Meeting.
38. **Kirby, Eric**, Burbank, Douglas, Jager, Jessica, Reheis, Marith, and Sarna-Wojcicki, Andrei, 2002, Pleistocene slip rate on the White Mountain Fault Zone: Geological Society of America Annual Meeting.
39. **Kirby, E.**, Hodges, K.V., Bowering, S.B., and Karlstrom, K.E., 2001, New geochronologic data from the Sandia pluton, New Mexico: *Geological Society of America Abstracts with Programs*, v. 33, no.5.
40. **Kirby, E.** and Whipple, K.X., 2000, Patterns of exhumation and rock uplift along the eastern margin of the Tibetan Plateau inferred from thermochronology and bedrock river incision: EOS (American Geophysical Union Transactions), 2000 Fall Meeting.
41. **Kirby, E.** and Whipple, K.X., 2000, Interpreting spatial variations in active deformation from river profile concavity: an example from the Siwalik Hills, central Nepal: EOS (American Geophysical Union Transactions), 2000 Fall Meeting. (INVITED)

42. **Kirby, E.** and Whipple, K.X., 2000, The effect of spatially variable rock uplift on river profile concavity: A new tool for neotectonic analysis of topography: Geological Society of America Abstracts with Programs, v. 32, no.7.
43. **Kirby, E.**, Whipple, K.X., Tang, W., Burchfiel, B.C., Chen, Z., 2000, Neotectonics along the eastern margin of the Tibetan Plateau: Inferences from bedrock river incision patterns: Earth Science Frontiers (15th Himalaya-Karakoram-Tibet Workshop), v. 7 (suppl.), p. 281-282.
44. **Kirby, E.**, Whipple, K.X., Burchfiel, B.C., Royden, L.H., Berger, G., Tang, W., and Chen, Z., 1999, Rates and patterns of Quaternary surface deformation in the Min Shan, China: Implications for the dynamics of mountain building along the eastern margin of the Tibetan Plateau: EOS (American Geophysical Union Transactions), 1999 Fall Meeting
45. **Kirby, E.**, Reiners, P., Farley, K., Krol, M., Liu, Y., Chen, Z., Tang, W., 1999, Late Cenozoic uplift and landscape evolution of the eastern margin of the Tibetan Plateau: Inferences from 40/39 Ar and U-Th-He thermochronology: Geological Society of America Abstracts with Programs, v. 31, no. 7.
46. **Kirby, E.**, Whipple, K.X., and Tucker, G., 1999, Transient concavity increase of bedrock channels in response to climate change: implications for relief evolution in active orogens: EOS (American Geophysical Union Transactions), 1999 Spring Meeting
47. **Kirby, E.**, Whipple, K.X., Burchfiel, B.C., Tang, W., and Chen, Z., 1998, Tectonic and topographic evolution of the Min Shan, Eastern margin of the Tibetan Plateau: EOS (American Geophysical Union Transactions), 1998 Fall Meeting
48. **Kirby, Eric** and Karlstrom, Karl, 1995, Comparison of the use of shear band and porphyroclast systems for evaluating general shear: An example from the Mesoproterozoic Sandia pluton, New Mexico: Geologic Society of America Abstracts with Programs, v. 27, no. 6, p. 71.
49. **Kirby, Eric** and Karlstrom, Karl, 1994, Middle Proterozoic tectonism in central New Mexico: implications for deformational provinces in the Southwest: Geologic Society of America Abstracts with Programs, v. 26, no. 6, p. 23.
50. **Kirby, Eric** and Karlstrom, Karl, 1994, New geologic map of Precambrian rocks of the Tijeras 7.5' quadrangle: implications from the Proterozoic to the Tertiary: New Mexico Geologic Society Abstracts with Programs, p. 46.
51. **Kirby, Eric** and Karlstrom, Karl, 1993, Emplacement of the 1.42 Ga Sandia pluton: a record of Middle Proterozoic tectonism: Geological Society of America Abstracts with Programs, v. 25, no. 6, p. 304.
52. Karlstrom, K.E., **Kirby, E.**, Andronicos, C., and Cortwright, R., 1993, Syn-extensional emplacement of the 1.42 Ga Sandia Granite, NM: Geological Society of America Abstracts with Programs, v. 25, no.1, pp. 17.
53. **Kirby, E.**, Karlstrom, K.E., and Andronicos, C., 1993, Synchronous pluton emplacement and deformation: the 1.42 Ga Sandia Granite: New Mexico Geologic Society Abstracts with Programs, p.19.
54. **Kirby, Eric**, and Tewksbury, Barbara, 1992, Structural analysis of the Dodds Creek leucogranitic gneiss body, Muskellunge Lake Quadrangle, New York: Geological Society of America Abstracts with Programs, v. 24, no. 3, pp. 32.

Other Abstracts (* denotes student/postdoc author)

1. *Sethanant, I., *McKenzie, K., **Kirby, E.**, Furlong, K., McDonald, E., Gosse, J.C., and Walker, J.D., 2019, Potential of the Ridgecrest earthquake sequence to enhance earthquake activity along low-angle detachment faults in Panamint and Searles Valley, California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract S31F-0460.
2. Walker, J.D., Monastero, F.C., Andrew, J.E., **Kirby, E.**, and Unruh, J.R., 2019, The M7.1 and 6.4 Ridgecrest earthquakes on the Airport Lake fault connect Owens Valley to the Garlock Fault: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract S34C-07.
3. Fisher, D.M., DiBiase, R., **Kirby, E.**, Carr, J., and Yeh, E.-C., 2019, Mountain belt dynamics, rock strength, and topography in Taiwan: *International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake*, Taipei, Taiwan, September 15-19, 2019
4. McDonald, E., **Kirby, E.**, Gosse, J., Phillips, F., Marrero, S., Sion, B., 2019, Integration of soil-profile development improves age interpretation of TCN depth profiles: an example from Late Pleistocene lake shorelines, southwestern US: *20th Congress of the International Union for Quaternary Research (INQUA)*, O-1067.
5. Gold, R., Stephenson, W., **Kirby, E.**, Woolery, E., Briggs, R., DuRoss, C., Delano, J., Odum, J., Leeds, A., Paris, D., Sethanant, I., and von Dassow, W., 2019, High-resolution seismic reflection imaging of the low-angle Panamint Valley normal fault system, eastern California: *Seismological Society of America Annual Meeting*
6. *Rohrmann, A., Schwanghart, W., and **Kirby, E.**, 2018, Yangtze upstream-river network expansion reveals potential top-down incision: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP53A-03. (INVITED)

7. *Sethanant, I., **Kirby, E.**, and McDonald, E., 2018, Paleoearthquake rupture length and magnitude along the central and southern Panamint Valley fault system, eastern California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T13I-0358.
8. DiBiase, R.A., Denn, A., Bierman, P.R., **Kirby, E.**, West, N., and Hidy, A., 2018, Stratigraphic control of landscape response to base-level fall, Young Womans Creek, Pennsylvania, USA: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP21D-2271.
9. Michalak, M.J., Team, T.C., Cashman, S.M., Furlong, K.P., and **Kirby, E.**, 2018, Examining time-space patterns in Tertiary-Present exhumation and uplift in the Klamath mountains, southern Cascadia forearc: Geological Society of America *Abstracts with Programs*, v. 50, no. 6, doi: 10.1130/abs/2018AM-320598.
10. *Shi, X., **Kirby, E.**, Furlong, K., Creason, G., Kamp, P., Xu, G., Wang, G., He, J., Fan, C., Xu, G., Su, Z., and Wang, E., 2018, Protracted Cenozoic exhumation in the hanging wall of the Longmen Shan thrust belt: Implications for fault system architecture and evolution: International Conference for the Decade Memory of the Wenchuan Earthquake: Chengdu, China.
11. Furlong, K.P. and **Kirby, E.**, 2018, Exploiting thermo-chronology to quantify uplift histories and patterns along the margins of Tibet: International Conference for the Decade Memory of the Wenchuan Earthquake: Chengdu, China.
12. Aslan, A., Karlstrom, K.E., Heizler, M., **Kirby, E.**, Granger, D.E., Hanson, P.R., Feathers, J.K., and Mahan, S.A., 2018, Controls on patterns of upper Colorado River bedrock incision: Geological Society of America *Abstracts with Programs*, v. 50, No. 5, doi: 10.1130/abs/2018RM-313816
13. Long, M.D., Benoit, M.H., Evans, R.L., King, S.D., **Kirby, E.**, Aragon, J.C., Miller, S.R., Liu, S., and Eisenbeck, J., 2017, Structure and evolution of the Central Appalachians from the mantle to surface: Results from the MAGIC project: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T14A-02. (INVITED)
14. Huntington, K.W., Klepeis, K., Cassel, E.J., Currie, C.A., DiBiase, R.A., **Kirby, E.**, Lang, K.A., Pazzaglia, F., Riebe, C.S., and Zeitler, P., 2017, Understanding the dynamic interactions between Earth-surface processes and tectonics: Opportunities for progress from outcrop to global scales: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-304720
15. *Manopkawee, P. and **Kirby, E.**, 2017, Evaluating channel-hillslope coupling along an erosion rate gradient, Bolinas Ridge, California: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-308344
16. Meigs, A., **Kirby, E.**, Mason, H.B., Wilson, G., Armstrong, E. Marcelli, M., and Spruell, J., 2017, Retrodicting Cascadia subduction zone great earthquake source characteristics from tsunami inundation along the Oregon coast: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-306455
17. *Regalla, C., Fisher, D.M., **Kirby, E.**, and Oakley, D.O.S., 2017, Slip inversion in the forearc of Tohoku, Japan, over multiple time scales: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-306361
18. *Von Dassow, W.A. and **Kirby, E.**, 2017, Geomorphic evidence for differential rock uplift across the southern Cascadia forearc: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-307033
19. *West, N., **Kirby, E.**, Nyblade, A.A., and Brantley, S.L., 2017, Aspect-dependent feedbacks between regolith production and transport at the Shale Hills Critical Zone Observatory: Geological Society of America *Abstracts with Programs*, v. 49, No. 6, doi: 10.1130/abs/2017AM-306767
20. Gosse, J., **Kirby, E.**, McDonald, E., and Walker, J.D., 2017, A coupled cosmogenic nuclide and soils chronostratigraphy for constraining the interaction between a low angle normal fault system and strike-slip faults, Panamint Valley, California: Canadian Geophysical Union Joint Assembly.
21. Paige, C.A., Gosse, J.C., Taylor, K., Margreth, A., **Kirby, E.**, and McDonald, E., 2017, An in-situ ¹⁴C erosion-rate method to improve the reliability of exposure dating strain markers, Panamint Valley, California: Canadian Geophysical Union Joint Assembly.
22. Zhang, H., **Kirby, E.**, Pitlick, J., Anderson, R., and Zhang, P., 2017, Characterizing the transient geomorphic response to base level fall in the northeastern Tibetan Plateau: Asia Oceania Geosciences Society 2017 Annual Meeting, SE04-A010.
23. Gosse, J., Paige, C., McDonald, E., **Kirby, E.**, and Hidy, A., 2017, Erosion-constrained cosmogenic nuclide exposure ages of coarse alluvium: 14th International Conference on Accelerator Mass Spectrometry, no. 364.
24. Guerrero, E., Meigs, A., and **Kirby, E.**, 2016, Quaternary landscape evolution and the surface expression of plume-lithosphere interactions in the Greater Yellowstone Area: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract D143B-03.

25. *West, N., **Kirby, E.**, Nyblade, A., and Brantley, S.L., 2016, Microclimate controls on the evolution of Critical Zone architecture in the Susquehanna Shale Hills Critical Zone Observatory: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP41F-04.
26. *Creason, C. G., Shi, X., **Kirby, E.**, Furlong, K. P., Wang, G., Wang, E., Xu, G., Kamp, P., and Danisik, M., 2016, Rapid exhumation along the Longmen Shan sustained for >30 Ma: Implications for mountain building along the eastern margin of Tibet: Geological Society of America *Abstracts with Programs*, v. 48, No. 7, doi: 10.1130/abs/2016AM-284775.
27. Zhu, L., Fan, M., Aslan, A., Tripathi, A., and **Kirby, E.**, 2016, Evidence from three isotopic proxies for the establishment of high relief before Neogene in the upper stream drainage of the Colorado River: Geological Society of America *Abstracts with Programs*, v. 48, No. 7, doi: 10.1130/abs/2016AM-286778.
28. Regalla, C., Pangrcic, H., **Kirby, E.**, & McDonald, E., 2016, Late Holocene rupture history of the Ash Hill fault, Eastern California Shear Zone. Poster Presentation at 2016 SCEC Annual Meeting.
29. Li, K., Xu, X., **Kirby, E.**, Tang, F., Yu, G., and Wenjun, K., 2016, Late Quaternary paleoseismology of the Milin Fault along the Yarlung Zangbo suture, Southeastern Tibetan Plateau: Asia Oceania Geosciences Society 2016 Annual Meeting, SE20-A008.
30. *Choi, N.H., **Kirby, E.**, McDonald, E., Gosse, J., Hoffman, W., 2016, Geomorphic constraints on Late Pleistocene-Holocene slip rates along the central Panamint Valley fault, CA: Geological Society of America *Abstracts with Programs*, v. 48., no. 4.
31. Aragon, J.C., Long, M.D., Benoit, M.H., **Kirby, E.** King, S.D., 2015, SKS splitting beneath the MAGIC FlexArray experiment: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract DI21A-2594.
32. Benoit, M.H., Long, M.D., **Kirby, E.**, King, S.D., and Miller, S.R., 2015, Crustal structure of the Mid-Atlantic margin from the MAGIC seismic array: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T11D-2931.
33. *Choi, N.H., **Kirby, E.**, and McDonald, E., 2015, New estimates of Late Pleistocene slip rate along the Panamint Valley fault system: Implications for distributed shear in eastern California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T41A-2861.
34. Liu, S., King, S.D., Adam, C.M., Long, M.D., Benoit, M.H., and **Kirby, E.**, 2015, Mantle flow pattern and dynamic topography beneath the eastern US: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T11D-2934.
35. Regalla, C., Fisher, D.M., **Kirby, E.**, and Furlong, K.P., 2015, The northeast Japan margin: an example of slow accretion rather than tectonic erosion?: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T54A-01. (INVITED)
36. *West, N., **Kirby, E.**, Nyblade, A., Brantley, S.L., and Clarke, B.A., 2015, Microclimate controls on weathering: Insights into deep critical zone evolution from seismic refraction surveys in the Susquehanna Shale Hills Critical Zone Observatory: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP41C-0941.
37. Zhang, H., Zhang, P., **Kirby, E.**, Pitlick, J., and Anderson, R.S., 2015, Characterizing the transient geomorphic response to base level fall in the northeastern Tibetan Plateau: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP41A-0900.
38. Miller, S.R., **Kirby, E.**, Long, M.D., Benoit, M.H., King, S.D., Bierman, P.R., and Sak, P.B., 2015, Late Cenozoic topographic rejuvenation in the central Appalachians: Geomorphic constraints and geophysical relationships from the MAGIC project: Geological Society of America *Abstracts with Programs*, v. 47, No. 7, p. 676. (INVITED)
39. *West, N. and **Kirby, E.**, 2015, Topographic fingerprints of micro-climate and lithology in the Central Appalachians: Geological Society of America *Abstracts with Programs*, v. 47, No. 7, p. 831. (INVITED)
40. Bierman, P.R., Portenga, E.W., and **Kirby, E.**, 2015, Mapping erosion of the Appalachian Mountains using cosmogenic ¹⁰Be: Geological Society of America *Abstracts with Programs*, v. 47, No. 7, p. 677. (INVITED)
41. Ma, L., Chabaux, F., West, N., **Kirby, E.**, Jin, L., Brantley, S.L., 2015, Regolith production and transport in the Susquehanna Shale Hills Critical Zone Observatory: Insights from U-series isotopes: Geological Society of America *Abstracts with Programs*, v. 47, No. 7, p. 832. (INVITED)
42. *Denn, A.R., Bierman, P.R., and **Kirby, E.**, 2015, Investigation of a relict periglacial feature: Hickory Run boulder field, Hickory Run State Park, Pennsylvania: Geological Society of America *Abstracts with Programs*, v. 47, No. 7, p. 550.
43. *Meghani, N.A. and **Kirby, E.**, 2015, Shortening rates along the Nepalese Himalaya inferred from geomorphic analysis: Geological Society of America *Abstracts with Programs*, v. 47, No. 7, p. 790.
44. *West, Nicole, **Kirby, Eric**, and Brantley, Susan, 2015, Microclimate controls on weathering and erosion in a temperate forest: Goldschmidt 2015, Aug. 16-21, Prague, CZ (INVITED)
45. Long, M.D, Benoit, M.H., King, S.D., **Kirby, E.**, Aragon, J., Liu, S., Miller, S.R., Jackson, K., and McNamara, J., 2015, Structure and dynamics of the Mid-Atlantic Appalachians from seismology, geodynamics, and geomorphology: Preliminary results from the MAGIC project: Earthscope 2015 National Meeting

46. King, S.D., Liu, S., Long, M.D., Benoit, M.H., **Kirby, E.**, Miller, S.R., 2015, MAGIC geodynamic modeling: Earthscope 2015 National Meeting
47. *West, N. and **Kirby, E.**, 2014, Hillslope response to differences in aspect-related microclimate: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP32B-06. (INVITED)
48. Bennett, G., Roering, J., Miller, S., **Kirby, E.**, and Schmidt, D., 2014, Active landsliding and landscape denudation in response to transient tectonic uplift, northern California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP51G-03.
49. Clarke, B., **Kirby, E.**, Burbank, D., and West, N., 2014, Using shallow seismic tomography to characterize patterns of near-surface weathering and the mobile-immobile regolith transition: Implications for the erodibility and morphology of hillslopes: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP33B-3635.
50. *Meghani, N., **Kirby, E.**, and Farr, T., 2014, Shortening rates in the Nepalese Himalaya derived from quantitative geomorphic analysis: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP53A-3592.
51. *Shi, X., **Kirby, E.**, Furlong, K., Meng, K., Robinson, R., Lu, H., and Wang, E., 2014, Continuous lake recession of Siling Co, central Tibet, since the Middle Holocene: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract GC43C-0759.
52. Hodges, K.V., Whipple, K.X., **Kirby, E.**, Arrowsmith, R., and Shirzaei, M., 2014, Modification of the Himalayan orogenic wedge by Late Cenozoic southeastward flow of Tibet: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T11E-08.
53. *Guerrero, E.F., Meigs, A., **Kirby, E.**, and Gregg, P.M., 2014, Spatial patterns of channel steepness in the central Rockies: Do river profiles record landscape evolution forcing by Yellowstone dynamic topography?: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T43E-03.
54. *West, N., **Kirby, E.**, and Bierman, P., 2014, Aspect-dependent regolith flux revealed by meteoric ^{10}Be : Geological Society of America *Abstracts with Programs*, v. 46, no. 6, p. 799.
55. *Regalla, C., **Kirby, E.**, McDonald, E.V., 2014, Holocene rupture history of the Ash Hill fault, Eastern California Shear Zone: Geological Society of America *Abstracts with Programs*, v. 46, no. 6, p. 776.
56. Bennett, G., Roering, J., Miller, S.R., **Kirby, E.**, and Schmidt, D., 2014, Landslide response to rock uplift along the Medocino Triple Junction, northern California: Geological Society of America *Abstracts with Programs*, v. 46, no. 6, p. 571.
57. *Guerrero, E.F., Meigs, A., **Kirby, E.**, and Gregg, P.M., 2014, Spatial patterns of channel steepness in the central Rockies: Do river profiles record landscape evolution forcing by Yellowstone dynamic topography?: Geological Society of America *Abstracts with Programs*. Vol. 46, No. 5, p. 28.
58. Ballato, P., Landgraf, A., Stockli, D., Ghasemi, M., Strecker, M., and **Kirby, E.**, 2014, Variations in erosional efficiency modulate orogenic growth of the Alborz Mountains (N Iran): *Geophysical Research Abstracts*, v. 16, EGU2014-13261.
59. Zhang, H., Zhang, P., Champagnac, J.-D., Molnar, P., Anderson, R., **Kirby, E.**, Craddock, W., and Liu, S., 2014, Pleistocene drainage reorganization driven by the isostatic response to deep incision into the northeastern Tibetan Plateau: *Geophysical Research Abstracts*, v. 16, EGU2014-4944.
60. *West, N. and **Kirby, E.**, 2014, Asymmetric topography reflects variable transport efficiency on soil-mantled hillslopes in the central Appalachians: Geological Society of America *Abstracts with Programs*. Vol. 46, No. 2, p. 72.
61. Crampton, M.E., Benoit, M.H., Long, M.D., **Kirby, E.**, King, S.D., 2013, Mantle dynamics, lithospheric structure, and topographic evolution of the Mid-Atlantic continental margin and central Appalachian orogen: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T41B-2580.
62. *Shi, X., **Kirby, E.**, Furlong, K.P., Meng, K., Marrero, S., Wang, E., Asmerom, Y., Robinson, R., Polyak, V.J., and Phillips, F.M., 2013, High lake levels at Siling Co, central Tibet, during MIS 5e-6: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract PP53A-1934.
63. *West, N., **Kirby, E.**, Ma, L., Bierman, P.L., 2013, Going Steady: Using multiple isotopes to test the steady-state assumption at the Susquehanna Shale Hills Critical Zone Observatory (*Invited*): *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H54A-03.
64. Clarke, B.A., **Kirby, E.**, Burbank, D.W., and West, N., 2013, Cross-CZO contrasts: Aspect controls and Critical Zone architecture: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H43L-07.
65. Aslan, A., **Kirby, E.**, Karlstrom, K.E., Darling, A., Rosenberg, R., Heizler, M., and Boraas, M., 2013, New constraints on the timing of Green River integration, southwestern Wyoming and northwestern Colorado: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 635.

66. Aslan, A., **Kirby, E.**, Karlstrom, K.E., Heizler, M., and Rosenberg, R., 2013, Late Cenozoic river incision histories of the Upper Colorado River system: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 57.
67. Karlstrom, K.E., Schmandt, B., Dueker, K.G., Aster, R.C., Aslan, A., **Kirby, E.**, Crow, R.S., Coblentz, D., Kelley, S.A., and Crossey, L.J., 2013, Mantle driven uplift of the Rocky Mountain/Colorado Plateau region, its surface manifestations, and implications for mantle processes: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 56.
68. *Meghani, N.A. and **Kirby, E.**, 2013, Rates of differential rock uplift across the Baisahi anticline, western Nepal, determined from stream profile analysis: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 549.
69. *Rosenberg, R.H., **Kirby, E.**, Aslan, A., Karlstrom, K.E., and Heizler, M.T., 2013, New constraints on the timing and rates of fluvial incision and channel profile form along the western slope of the Rockies: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 634.
70. *West, N., **Kirby, E.**, Bierman, P.R., and Clarke, B., 2013, Quantifying aspect control on transport efficiency and mobile regolith flux at the Susquehanna Shale Hills Critical Zone Observatory: Geological Society of America *Abstracts with Programs*, v. 45, No. 7, p. 409.
71. Aslan, A., Karlstrom, K., **Kirby, E.** Heizler, M., Lazear, G., and Rosenberg, R., 2013, Late Cenozoic river incision in the Rocky Mountain region and implications for Neogene uplift in the western U.S.: *8th International Conference on Geomorphology*
72. Furlong, K., **Kirby, E.**, Wang, E., Van Soest, M., Xu., G., Shi, X., Kamp, P., Danisik, M., and Hodges, K., 2013, Reconstructing the growth of high topography across eastern Tibet in space and time: *Acta Geologica Sinica*, v. 87(z1): 37.
73. Aslan, A., Karlstrom, K.E., **Kirby, E.**, Heizler, M., Darling, A., and Rosenberg, R., 2013, Late Cenozoic river incision in the Rocky Mountain region and possible connections to mantle-driven uplift: Geological Society of America *Abstracts with Programs*, v. 43, No. 5, p. 9.
74. *West, N. and **Kirby, E.**, 2013, Topographic fingerprints of hillslope erosion in the North American Appalachians: *Geophysical Research Abstracts*, v. 15, EGU2013-11281.
75. Ballato, P., Landgraf, A., Stockli, D., Ghassemi, M., Strecker, M., and **Kirby, E.**, 2013, Interplay between tectonics and climate in orogenic growth: Insights from the Alborz Mountains (N. Iran): *Geophysical Research Abstracts*, v. 15, EGU2013-9711.
76. Allen, G.H., Barnes, J.B., Pavelsky, T.M., and **Kirby, E.**, 2012, Bedrock channel adjustment to variations in tectonics and lithology at the Himalayan front in northwest India: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP51B-0992.
77. Aslan, A., Karlstrom, K.E., **Kirby, E.**, and Heizler, M.T., 2012, Late Cenozoic Colorado River incision and implications for Neogene uplift of the Colorado Rockies: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP13A-0808.
78. Regalla, C., Fisher, D.M., Furlong, K.P., and **Kirby, E.**, 2012, Kinematic evolution of the northeast Japan convergent margin and implications for plate boundary dynamics: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T43A-2643.
79. Rittase, W.M., Walker, J.D., **Kirby, E.**, Andrew, J. and Wan, E., 2012, Late Cenozoic sedimentation in Pilot Knob Valley, California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T15B-2585.
80. Rittase, W.M., Walker, J.D., **Kirby, E.**, Andrew, J. and Wan, E., 2012, Late Cenozoic sedimentation in Pilot Knob Valley, California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T15B-2585.
81. Shi, X., **Kirby, E.**, Furlong, K.P., Wang, E., Meng, K., Marrero, S., Robinson, R.A., and Phillips, F.M., 2012, Weak middle crust beneath central Tibet: Constraints from shoreline deformation around Siling Co: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T15F-2668.
82. West, N. and **Kirby, E.**, 2012, Testing hillslope transport models in the Susquehanna Shale Hills Critical Zone Observatory: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP41D-0836.
83. Allen, G.H., Barnes, J.B., Pavelsky, T.M., and **Kirby, E.**, 2012, River channel width and hillslope relief correlations across tectonic and lithologic environments: Geological Society of America *Abstracts with Programs*, v. 44, no. 7, p. 416.
84. Furlong, K.P. and **Kirby, E.**, 2012, Building the eastern margin of Tibet: *AOGS Meeting*, Abstract SE58-A015.
85. *Rosenberg, R.H., **Kirby, E.**, Aslan, A., Karlstrom, K.E., Heizler, M.T., Kelley, S.A., Piotraschke, R.E., and Furlong, K.P., 2011, Does Late Miocene exhumation along the western slope of the Colorado Rockies reflect differential rock uplift?: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T13B-2378.

86. *Wang, W., **Kirby, E.**, and Zhang, P., 2011, A new perspective on Tertiary basin evolution in northeastern Tibet: Evidence for crustal extension during the middle Tertiary: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T13F-2475.
87. Allen, G.H., Barnes, J.B., **Kirby, E.**, and Pavelsky, T.M., 2011, Steady-state bedrock river response to tectonic and lithologic variations across active folds at the northwest Himalayan front: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP23C-0781.
88. **Kirby, E.**, Furlong, K.P., Wang, E., Van Soest, M., Xu, G., Kamp, P., Hodges, K.V., and Shi, X., 2011, How did the Tibetan Plateau grow?: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T24C-02.
89. Miller, S.R., Sak, P.B., **Kirby, E.**, and Bierman, P.R., 2011, Bumps in the long road to flat: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP41D-0653.
90. *Regalla, C., Fisher, D.M., Furlong, K.P., and **Kirby, E.**, 2011, An alternative explanation for forearc subsidence along the Northeast Japan “erosive” margin?: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract DI43B-06.
91. *West, N., **Kirby, E.**, Bierman, P.R., and Rood, D.H., 2011, 2011, Constraints on regolith formation and erosion rates at the Susquehanna Shale Hills Critical Zone Observatory, PA, determined using meteoric ¹⁰Be: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP52D-05.
92. Duvall, A.R., Clark, M.K., **Kirby, E.**, Farley, K.A., Craddock, W.H., Li, C., and Yuan, D., 2011, Constraints on Kunlun and Haiyuan left-lateral strike-slip fault evolution, northeastern margin of the Tibetan Plateau: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T51D-2373.
93. Rittase, W.M., Walker, J.D., **Kirby, E.**, McDonald, E., Gosse, J., Spencer, J.Q.G., Wan, E., and Herrs, A.J., 2011, Quaternary N-S shortening across the Garlock fault in Pilot Knob Valley, California: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T51B-2328.
94. *West, N., **Kirby, E.**, Bierman, P.R., and Rood, D.H., 2010, Using meteoric ¹⁰Be to track soil erosion and transport within a forested watershed, Susquehanna Shale Hills Critical Zone Observatory, PA: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP43A-0747
95. Strecker, M.R., Bookhagen, B., Hilley, G., **Kirby, E.**, and Sobel, E.R., 2010, Broken foreland basins in the India-Eurasia collision zone and the central Andes: tectonic, geomorphic, and sedimentologic similarities: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T41D-05 (INVITED)
96. Rittase, W.M., Walker, J.D., **Kirby, E.**, McDonald, E., Gosse, J., and Spencer, J.Q., 2010, Late Cenozoic N-S shortening across the central Garlock fault in Pilot Knob Valley, California – Implications for structural and kinematic relations with the Panamint Valley fault system: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T33B-2232
97. *Regalla, C., **Kirby, E.**, Fisher, D.M., Bierman, P.R., and Rood, D.H., 2010, Exhumational and incisional response to active faulting in the Japanese forearc, northeast Honshu: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP53B-0608
98. Piotraschke, R.E., Furlong, K.P., Cashman, S.M., Kamp, P.J., Danisik, M., and **Kirby, E.**, 2010, Insights into the tectonic development of the Klamath Mountains Province from thermal data and modeling: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T13C-2211
99. *Morell, K.D., **Kirby, E.**, Fisher, D.M., and Van Soest, M.C., 2010, Rock uplift and transient landscape development in response to subduction of the Cocos Ridget, Central American Volcanic Arc: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract EP53D-0647
100. McAuliffe, L.J., Dolan, J.F., **Kirby, E.**, Haravitch, B., and Alm, S., 2010, Paleoseismologic evidence for late Holocene earthquakes on the Southern Panamint Valley fault zone: Implications for earthquake clustering in the Eastern California Shear Zone north of the Garlock fault: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T33B-2227
101. Darling, A.L., Karlstrom, K.E., Granger, D.E., Aslan, A., **Kirby, E.**, Ouimet, W.B., Coblenz, D.D., 2010, New incision rates along the Colorado River system based on cosmogenic burial dating of terraces: Implications for regional controls on differential incision: *Eos Trans. AGU*, Fall Meet. Suppl., Abstract T21E-2215
102. Rittase, W., McDonald, E., Walker, J. D., **Kirby, E.**, Gosse, J., and Spencer, J., 2010, Combining absolute dating of alluvial fans with soil characteristics to investigate spatial and temporal variability of slip along the central Garlock fault, Pilot Knob Valley, California: *Geologic Society of America Abstracts with Programs*, v. 42, no. 5, p. 522.
103. Aslan, A., Karlstrom, K., **Kirby, E.**, Ouimet, W., Kelley, S., Darling, A., and Heizler, M., 2010, Post 10-Ma river incision rates in western Colorado: Implications for Neogene uplift of the Colorado Rockies: *Geologic Society of America Abstracts with Programs*, v. 42, no. 5, p. 77.

104. McAuliffe, Lee, Dolan, James, F., **Kirby, Eric**, Haravitch, Ben, and Alm, Steve, 2010, Holocene paleoseismology of the Southern Panamint Valley fault zone: Evaluating seismic clustering along the Eastern California Shear Zone north of the Garlock fault: SCEC Annual Meeting
105. Wang, E., Shi, X., **Kirby, E.**, Furlong, K., Xu, G., Kamp, P., and Reiners, P., 2010, Late Cenozoic exhumation of the eastern margin of the Tibetan Plateau: New constraints from age-elevation transects in the Longmen Shan, *in*, Leech, M. and others, eds., Proceedings for the 25th Himalaya-Karakoram-Tibet Workshop: U.S. Geological Survey, Open-File Report 2010-1099, 1 p.
106. Wang, E., Zhong, D., Teng, J., and **Kirby, E.**, 2010, When did shortening cease within the Tibetan Plateau?, *in*, Leech, M. and others, eds., Proceedings for the 25th Himalaya-Karakoram-Tibet Workshop: U.S. Geological Survey, Open-File Report 2010-1099, 1 p.
107. Clark, M., Duvall, A., Lewandowski, N., Hetland, E., Zheng, D., Lease, R., Craddock, W., **Kirby, E.**, and Wang, Z., 2010, Fault histories of the northeastern Tibetan Plateau margin: Geodynamic implications of far-field deformation during continental collision, *in*, Leech, M. and others, eds., Proceedings for the 25th Himalaya-Karakoram-Tibet Workshop: U.S. Geological Survey, Open-File Report 2010-1099, 2 p.
108. Rittase, W.M., Walker, J.D., **Kirby, E.**, McDonald, E., and Gosse, J., 2010, Off-fault deformation, uplift, and sedimentation in Pilot Knob Valley, California – Piecing together complex structural and kinematic processes between the Garlock fault and Panamint Valley fault: Geologic Society of America *Abstracts with Programs*, v. 42.
109. Miller, S.R., Sak, P.B., and **Kirby, E.**, 2010, Relationship between fluvial geomorphology and erosion in the Pennsylvania Appalachians: Implications for landscape evolution: Geologic Society of America *Abstract with Programs*, v. 42.
110. Ouimet, W.B., **Kirby, E.** and Karlstrom, K.E., 2009, Tectonic, lithologic and climatic controls on stream gradients across the Colorado Plateau and Rocky Mountains, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract EP41B-0607
111. *Craddock W.H., **Kirby, E.** and Liu, J., 2009, Tectonic setting of Cretaceous basins in NE Tibet: Insights from the Jinguum basin, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T41E-03
112. Darling, A.L., Karlstrom, K.E., **Kirby, E.**, Ouimet, W.B., Aslan, A., and Granger, D.E., 2009, Incision history of the Colorado River system over the last several Ma from cosmogenic burial dating of high terrace gravels, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T43D-2154
113. *Hoffman, W., **Kirby, E.**, McDonald, E., Walker, J. D., and Gosse, J., 2009, Late Pleistocene slip rates along the Panamint Valley fault zone, eastern California *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T13C-1894
114. Karlstrom, K.E., Coblenz, D.D., Ouimet, W.B., **Kirby, E.**, van Wijk, J.W., Schmandt, B., Crossey, L.J., Crow, R., Kelley, S., McKeon, R.E., Aslan, A., Darling, A.L., Dueker, K.G., Aster, R.C., Lazear, G.D., and Hilton, D.R., 2009, Dynamic uplift of the Colorado Rockies and western Colorado Plateau in the last 6 Ma driven by mantle flow and buoyancy: Evidence from the Colorado River region, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T51F-04
115. Piotraschek, R.E., Furlong, K.P., Cashman, S.M., and **Kirby, E.**, 2009, Constraints on the exhumation history of the Klamath Mountains Block from preliminary thermal modeling, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T43D-2140
116. *Regalla, C., **Kirby, E.** and Fisher, D.M., 2009, Topographic signature of Plio-Quaternary contraction in the northeastern Japan forearc, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract EP41B-0611
117. Rittase, W.M., Walker, D., **Kirby, E.** and McDonald, E., 2009, New Quaternary slip rate estimates for the central Garlock fault in SE California – evidence for large transient slip-rates, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract T11F-04
118. Shi, X., **Kirby, E.**, and Furlong, K.P., 2009, Geomorphic response to crustal evolution of the plate boundary, northern California, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract EP41B-0604
119. *Hoffman, William, **Kirby, Eric**, McDonald, Eric, Walker, J. Douglas, and Gosse, John, 2009, Late Pleistocene slip rates along the Panamint Valley fault zone, eastern California: Geologic Society of America *Abstract with Programs*, 249-13.
120. *Craddock, William, **Kirby, Eric**, and Zhang, Huiping, 2009, Late Miocene onset of fault slip along the margins of the Gong He basin, NE Tibet: Implications for the evolution of topography in NE Tibet: Geologic Society of America *Abstract with Programs*, 254-8.
121. *Morell, Kristin, **Kirby, Eric**, and Fisher, Donald, 2009, Landscape response to subduction of the Cocos Ridge: Talamancas Range, Costa Rica: Geologic Society of America *Abstract with Programs*, 62-11.
122. Rittase, William, Walker, J. Douglas, **Kirby, Eric**, and McDonald, Eric, 2009, How steady is the Garlock Fault?: Geologic Society of America *Abstract with Programs*, 62-9.

123. Miller, Scott R., Sak, Peter B., and **Kirby, Eric**, 2009, Hack vs. Davis: Revisiting landscape evolution in an ancient orogen: *Geologic Society of America Abstract with Programs*, 244-30.
124. Darling, Andy, Karlstrom, Karl, **Kirby, Eric**, and Ouimet, Will, 2009, Comparison of the modern profiles and discharge of the Green and Colorado rivers and implications for epirogenic uplift of the Colorado Plateau and Rocky Mountains: *Geologic Society of America Abstract with Programs*, 108-30.
125. *Harkins, N.W. and **Kirby, E.**, 2008, Channel width adjustments to a transient increase in fluvial erosion rates: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
126. *Craddock, W.H., **Kirby, E.**, Harkins, N. and Zhang, H., 2008, Timing and magnitude of upper crustal shortening in the Gonghe basin region of the northeastern Tibetan Plateau: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
127. *Hoffman, W., **Kirby, E.**, McDonald, E., Walker, J., and Gosse, J., 2008, New constraints on Late Pleistocene – Holocene slip rates and seismic behavior along the Panamint Valley fault zone, eastern California: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
128. Rittase, W., Walker, D., Taylor, M, and **Kirby, E.**, 2008, Fault mechanics and active strain along the Garlock Fault in SE California: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
129. Parsons, T., Ji, C. and **Kirby, E.**, 2008, Six months later: Testing the Coulomb stress change model by examining calculations made immediately after the 12 May 2008, Ms=8.0 Wenchuan earthquake (American Geophysical Union Transactions), 2008 Fall Meeting
130. Fisher, D.M., **Kirby, E.**, Morell, K., Regalla, C., and Gardner, T.W., 2008, Rethinking the mass budgets of erosive subduction zones: Evidence for coupled outer forearc subsidence and inner forearc shortening: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
131. *Regalla, C., Fisher, D. and **Kirby, E.**, 2008, Active uplift within the inner forearc along the Japan Trench, northeastern Honshu: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
132. Karlstrom, K., **Kirby, E.**, Kelley, S., Aslan, A., Ouimet, W., Coblenz, D., and van Wijk, J., 2008, Colorado River system of the southwestern US: Analysis of the longitudinal profile, differential incision and hypothesis for dynamic uplift and rapid incision in the last 6 Ma: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
133. Darling, A., Karlstrom, K., **Kirby, E.**, Ouimet, W., Coblenz, D., and Aslan, A., 2008, Evaluating Neogene uplift and denudational history of the Colorado Rockies using river profiles and incision records: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
134. Brown, S.W., Karlstrom, K.E., **Kirby, E.**, Ouimet, W., Dillon, M., Cox, C., Newell, D., DeMoore, M., van Wijk, J., Coblenz, D., Sower, T.R., Rose-Coss, D., and Crossey, L.J., 2008, Hypothesis for epirogenic uplift above the Jemez lineament: Is Neogene doming recorded by river profiles and terraces?: EOS (American Geophysical Union Transactions), 2008 Fall Meeting
135. Walker, J. Douglas, Monastero, Francis C., **Kirby, Eric**, Rittase, William, and Casey, Zachary, 2008, Deformation history of the Garlock Fault, Eastern California: *Geologic Society of America Abstract with Programs*, v. 40., no. 6, 288-9.
136. *Harkins, Nathan, Craddock, William, and **Kirby, Eric**, 2008, Eastward propagation of the Kunlun Fault and implications for the mechanics of the Tibetan Plateau: *Geologic Society of America Abstract with Programs*, v. 40., no. 6, 234-11.
137. Aslan, A., Hood, W., Karlstrom, K., **Kirby, E.**, Granger, D., Betton, C., Darling, A., Benage, M., and Schoepfer, S., 2008, Abandonment of Unaweep Canyon at ~1 Ma and the effects of transient knickpoint migration, western Colorado: *Geologic Society of America Abstract with Programs*, v. 40., no. 6, 178-9.
138. Rittase, William, Walker, Douglas, Taylor, Michael, and **Kirby, Eric**, 2008, Active tectonics of the Garlock Fault in the southern Slate Range of the northern Mojave Desert, California: *Geologic Society of America Abstracts with Programs*, v. 40, no. 1, pg. 52.
139. *Shi, X., **Kirby, E.**, Furlong, K., Wang, E., Asmerom, Y., and Polyak, V. 2007, Does Tibetan lower crust flow?: Preliminary constraints from a reconnaissance investigation of lacustrine shorelines around Siling Co, Tibet: EOS (American Geophysical Union Transactions), 2007 Fall Meeting
140. *Harkins, N., **Kirby, E.**, Shi, X., and Wang, E., 2007, Slip-rate gradients along the eastern Kunlun fault: Implications for crustal strength in eastern Tibet: EOS (American Geophysical Union Transactions), 2007 Fall Meeting
141. Ouimet, W., **Kirby, E.**, and Whipple, K., 2007, Controls on channel width in large rivers dissecting the eastern margin of the Tibetan Plateau: EOS (American Geophysical Union Transactions), 2007 Fall Meeting

- 142.*Regalla, C., Fisher, D., **Kirby, E.**, and Morell, K., 2007, Constraints on the timing and kinematics of deformation within a thick-skinned, inner forearc thrust system, northeastern Japan margin: EOS (American Geophysical Union Transactions), 2007 Fall Meeting
- 143.Phillips, F.M., **Kirby, E.**, Anadankrishnan, S., and Marrero, S.M., 2007, A potential reconciliation of short-term geodetic and long-term geological strain-rate estimates across the Owens Valley: EOS (American Geophysical Union Transactions), 2007 Fall Meeting
- 144.Oskin, M., Burbank, D., Bookhagen, B., Phillips, F., Marrero, S., **Kirby, E.**, Selander, J., and Goode, J., 2007, The role of basement relief in the structural evolution of the Naryn intramontane basin, Kyrgyz Tien Shan: EOS (American Geophysical Union Transactions), 2007 Fall Meeting
- 145.*Harkins, N. and **Kirby, E.**, 2007, Patterns and processes of fluvial incision in the headwaters of the Yellow River, NE Tibet: Geologic Society of America *Abstract with Programs*, v. 39., no. 6, pg. 262.
- 146.*Greene, D., **Kirby, E.**, Dawers, N., Phillips, F., McGee, S., and Burbank, D., 2007, Quantifying accommodation of active strain along distributed fault arrays in Owens Valley, California: Geologic Society of America *Abstract with Programs*, v. 39., no. 6, pg. 441.
- 147.Karlstrom, K.E., **Kirby, E.**, Kelley, S., Aslan, A., Sandoval, M., and Crow, R., 2007, Neotectonic influences on the longitudinal profile of the Colorado River system in Grand Canyon and the Rocky Mountains: Geologic Society of America *Abstract with Programs*, v. 39., no. 6, pg. 194.
- 148.Karlstrom, K.E., Deuker, K., Aster, R., Kelley, S., **Kirby, E.**, Hilton, D., Coblenz, D., Farmer, G., MacCarthy, J., 2007, Cenozoic uplift associated with the Aspen Anomaly, Central Colorado, and update on the CREST Colorado Rockies Experiment and Seismic Transects: Geologic Society of America *Abstract with Programs*, v. 39., no. 6, pg. 202.
- 149.*Goldstein, E. and **Kirby, E.**, 2006, Testing models of fluvial incision in landscapes undergoing differential rock uplift: EOS (American Geophysical Union Transactions), 2006 Fall Meeting
- 150.*Harkins, N. and **Kirby, E.**, 2006, Terrace riser evolution and use as passive markers of fault displacement: An example from the Kunlun fault in northeastern Tibet: EOS (American Geophysical Union Transactions), 2006 Fall Meeting
- 151.*Sitchler, J.C., **Kirby, E.**, and Fisher, D.M., 2006, Transient landscape response to increased coupling across a subduction zone interface, Talamanca Range, Costa Rica: EOS (American Geophysical Union Transactions), 2006 Fall Meeting
- 152.Sandoval, M., Karlstrom, K.E., Aslan, A., **Kirby, E.**, and Granger, D., 2006, Incision history of the Black Canyon of the Gunnison: EOS (American Geophysical Union Transactions), 2006 Fall Meeting
- 153.Sheehan, T., Dawers, N., and **Kirby, E.**, 2006, Temporal changes in extensional strain rate in northern Owens Valley, California and implications for the Eastern California Shear Zone
- 154.*Harkins, N., **Kirby, E.**, and Heimsath, A., 2006, Spatially-averaged sediment TCN concentrations describe steady-state and transient landscape processes in NE Tibet: Geologic Society of America, 2006 Annual Meeting
- 155.*Rogers, M., Harkins, N., and **Kirby, E.**, 2006, Rates and patterns of fluvial incision along the Yellow River in northeastern Tibet: Inferences from Pleistocene-Holocene terrace sequences: Geologic Society of America, 2006 NE Section Meeting
- 156.*Harkins, N., **Kirby, E.**, Heimsath, A., and Kline, K., 2005, Transient fluvial incision in the upper reaches of the Yellow River: Base-level fall or differential rock uplift?: EOS (American Geophysical Union Transactions), 2005 Fall Meeting.
- 157.*Johnson, C.B., Furlong, K.P. and **Kirby, E.**, 2004, From Topography to Tectonics: Coupling geomorphic and geodynamic analyses to assess potential blind thrusts in the Marin County region: EOS (American Geophysical Union Transactions), 2005 Fall Meeting.
- 158.Furlong, K.P., **Kirby, E.**, and Johnson, C.B., 2005, Coupling geophysical and geomorphic analyses to identify blind thrust structures in the San Francisco Bay region: Geologic Society of America, 2005 Earth System Processes Meeting.
- 159.*Johnson, C.B., Furlong, K.P. and **Kirby, E.**, 2005, Potential earthquake hazards beneath Mt. Tamalpais region: Modeling fault interactions: Geologic Society of America, 2005 Cordilleran Section Meeting.
- 160.*Numelin, T. and **Kirby, E.**, 2004, Evidence for Quaternary slip on a low-angle normal fault: Searles Valley, CA: EOS (American Geophysical Union Transactions), 2004 Fall Meeting.
- 161.*Angerman, C., Harkins, N. and **Kirby, E.**, 2004, Tertiary shortening at the northeastern margin of the Tibetan Plateau: EOS (American Geophysical Union Transactions), 2004 Fall Meeting.
- 162.*Johnson, C., Furlong, K.P. and **Kirby, E.**, 2004, Possible Geometry and Implications for Potential Blind Thrusts Beneath the Marin County – Mt. Tamalpais Region: EOS (American Geophysical Union Transactions), 2004 Fall Meeting.

- 163.*Miller, S. R., Slingerland, R. L. and **Kirby, E.**, 2004, Lateral Advection of Bedrock and Steady-State Convex-concave Stream Longitudinal Profiles: Implications for the History of the South Tibetan Fault System: EOS (American Geophysical Union Transactions), 2004 Fall Meeting.
- 164.Furlong, K.P. and **Kirby, E.**, 2004, Potential for a blind thrust beneath the Marin County – Mt. Tamalpais region: EOS (American Geophysical Union Transactions), 2004 Fall Meeting.
- 165.*Numelin, T., Marone, C., **Kirby, E.**, 2004, Fault gouge mineralogy as a driver for variable frictional response in a low angle normal fault setting: Geological Society of America Annual Meeting
- 166.Karlstrom, K.E. and **Kirby, E.**, 2004, Colorado River system of the southwestern U.S.: Longitudinal profiles, differential incision, and a hypothesis for Quaternary tectonism at both ends: Geological Society of America Annual Meeting.
- 167.Whipple, K., Wobus, C., **Kirby, E.**, Snyder, N., 2003, Tectonics from topography: Methods, Application, and Limitations: EOS (American Geophysical Union Transactions), 2003 Fall Meeting
- 168.*Numelin, T., Marone, C., **Kirby, E.**, 2003, Variations in frictional behavior of fault gouge along a low angle normal fault system: EOS (American Geophysical Union Transactions), 2003 Fall Meeting
- 169.Ouimet, W., Whipple, K., **Kirby, E.**, Clark, M., 2003, Uplift and River Incision Within the Eastern Margin of the Tibetan Plateau from Regional Patterns of Channel Steepness: EOS (American Geophysical Union Transactions), 2003 Fall Meeting
- 170.*Duvall, A., Burbank, D., and **Kirby, E.**, 2003, Bedrock channel response to variability in rock strength and rock-uplift rate in the Santa Ynez Mountains, California: Geological Society of America Fall Meeting.
- 171.Andrew, Joseph E., Walker, J. Douglas, and **Kirby, Eric**, 2003, Structural configuration of Miocene to Recent transtension in the northern Slate Range and southern Panamint Valley, California: Geothermal Program Office/Department of Defense Annual Technical Symposium
- 172.*Duvall, A., **Kirby, E.**, and Burbank, D., 2002, Dynamics of bedrock channels: a field-based comparison of channel characteristics in response to variability of rock competence and rock-uplift: EOS (American Geophysical Union Transactions), 2002 Fall Meeting.
- 173.*Jager, J.M., **Kirby, E.**, and Burbank, D., 2002, Patterns of Pliocene-Pleistocene deformation in the Waucobi embayment, Owens Valley, California: EOS (American Geophysical Union Transactions), 2002 Fall Meeting.
- 174.Miller, S.R., Slingerland, R.S., and **Kirby, E.**, 2002, Landscape Evolution in Orogens with Significant Lateral Advection of Rock: Insights from Numerical Simulations of Fault-Bend Folds: EOS (American Geophysical Union Transactions), 2002 Fall Meeting.
- 175.Dawers, Nancye H., Sheehan, Timothy P., and **Kirby, Eric**, 2002, Structural nature of a large discontinuity in the Sierra Nevada extensional fault system: the Coyote ‘Warp’ of northern Owens Valley, California: Geological Society of America Annual Meeting.
- 176.Walker, J. Douglas, Andrew, Joseph A., and **Kirby, Eric**, 2002, Structural configuration of transtension in a portion of the southwestern Basin and Range: Geological Society of America Annual Meeting.
- 177.Clift, P.D., Blusztajn, J., Krol, M., **Kirby, E.**, and Green, O., 1999, Timing of collision and patterns of early uplift along the Indus suture, Ladakh Himalaya, India: EOS (American Geophysical Union Transactions), 1999 Spring Meeting.
- 178.Whipple, K.X. and **Kirby, E.**, 1998, Climate change, valley incision, and isostatic peak uplift: a reappraisal: EOS (American Geophysical Union Transactions), 1998 Fall Meeting.
- 179.Geissman, J.W., Feig, T., Gresham, A., **Kirby, E.**, Melker, M., Read, A., Romano, E., Rowe, H., and Wawrzyniec, T., 1994, Paleomagnetic contact and conglomerate tests on the age of magnetizations in the Mississippian Leadville Fm. and karst features, San Juan Mountains, CO: AGU abstracts - Fall Meeting.
- 180.Karlstrom, K.E., Andrew, J.E., Cederquist, D.P., Daniel, C.G., Hayden, S.N., Ilg, B.R., **Kirby, E.**, Melker, M.D., Romano, E.M., Rowe, H.D., and Savarese, G., 1994, Evidence for low angle detachment faulting in southwestern New Mexico based on reconnaissance structural studies of the Little Hatchet Mountains: New Mexico Geologic Society Abstracts with Programs, p. 41.
- 181.Andronicos, C.L., Karlstrom, K.E., and **Kirby, E.**, 1993, Transtensional deformation of the 1.4 Ga Sandia Granite, a record of Middle Proterozoic tectonism: New Mexico Geologic Society Abstracts with Programs, p. 20.
- 182.Tewksbury, Barbara, and **Kirby, Eric**, 1992, Shear fabric development in leucogranitic gneisses of the Payne Lake and Dodds Creek bodies, Muskellunge Lake Quadrangle, New York: Geological Society of America Abstracts with Programs, v. 24, no. 3, pp. 80.