

PATRICK J. KENNELLY

Department of Earth & Environmental Science
LIU Post
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Brookville, NY 11548

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SUMMARY OF QUALIFICATIONS

- Associate Dean, College of Liberal Arts and Sciences (7/15 – Present) and Acting Department Chair, Dept. of Earth and Environmental Science (1/14 – 6/14) at LIU Post
- University Professor (12+ years) instructing courses in GIS, cartography, environmental science, Earth science, and geology at LIU Post
- Online instructor (12+ concurrent years) in Master's of GIS program (Recipient of the 2009 Sloan-C Award for the Most Outstanding Online Teaching & Learning Program) at Penn State University - World Campus
- Editor of *Cartographic Perspectives* (1/11 – Present), an open-access journal dedicated to the science and practice of cartography
- Co-Graduate Advisor and Instructor (9/12 – 6/14) in online Mobile GIS Applications Development certificate program at LIU Post (Nominated for the 2013 Sloan-C Award for the Most Outstanding Online Teaching & Learning Program)
- GIS Manager with Montana Bureau of Mines & Geology (3 years), a state geological survey, and David Evans & Assocs. Inc. (2 years), an environmental/engineering consulting firm
- Ph.D. in Geography at Oregon State University, focus in techniques
- Senior Geophysicist (6 years) with Exxon Exploration Company
- M.S. in Geophysics at University of Arizona
- B.S. in Geology at Allegheny College, Pennsylvania

RESEARCH INTERESTS

Terrain and subsurface cartographic representation, visualization, imaging, and analysis.
Use of geographic information systems in geological, environmental, and spatial analyses.

EDUCATION

Ph.D. Geography (GIS). Oregon State University; Corvallis, OR. December, 1997
Focus in Geographic Information Systems, cartography, and remote sensing.
Advisor: Dr. A. Jon Kimerling
Dissertation Title: "Effects of Scale Properties on Biodiversity Mapping in Oregon"

M.S. Geophysics. University of Arizona; Tucson, AZ. December, 1987
Focus in solid-earth geophysics, potential fields, geodynamics and earthquake seismology.
Advisor: Dr. Clement Chase
Thesis Title: "Flexure & Isostatic Residual Gravity Modeling of the Sierra Nevada Mts., CA"

B.S. Geology (Honors & Phi Beta Kappa). Allegheny College; Meadville, PA. May, 1984
Focus in structural geology and stratigraphy.
Advisor: Dr. Wayne Brewer
Undergraduate Thesis Title: "Subsurface Analysis of the Devonian of Northwestern PA"
Minor: English writing

EMPLOYMENT HISTORY

Associate Dean	7/15 - Present
Professor (Tenured)	9/13-Present
Associate Professor (Tenured)	9/08-8/13
Assistant Professor (Tenure Track)	1/03-8/08

*Department of Earth and Environmental Science
LIU Post, Brookville, NY*

Visiting Professor (Part Time, Non-Tenure Track) 7/13-Present
Visiting Associate Professor (Part Time, Non-Tenure Track) 7/08-8/13
Visiting Assistant Professor (Part Time, Non-Tenure Track) 4/04-6/08

*Department of Geography
The Pennsylvania State University, World Campus*

Associate Research Professor & GIS Manager 7/02-1/03
GIS Manager 10/99-7/02

*Montana Bureau of Mines and Geology
Montana Tech of the University of Montana, Butte, MT*

GIS Project Manager 12/97-10/99
David Evans and Associates (DEA) Inc., Portland, OR

GIS Analyst 9/95-12/96
Instructor & Research Assistant 9/94-6/97
Oregon State University, Corvallis, OR

Senior Geophysicist 7/91-7/94
Geophysicist 1/88-7/91
Exxon Exploration Co., Houston & Midland, TX

REFEREED ARTICLES (* denotes student)

Kennelly, P. 2016. Complexities of Designing Terrain Maps Illustrated with Horizontal Hachures. Accepted by the *International Journal of Cartography*.

Bannister, R, and P. Kennelly. 2016. Incorporating Stream Features into Groundwater Contouring Tools with GIS. *Groundwater* 54(2): 286-290.

Neidich-Ryder, C.* and P. Kennelly. 2014. Mapping Prairie Remnants of the Hempstead Plains, Long Island, New York. *Environmental Monitoring and Assessment* 186(5): 3011-3022.

Kennelly, P. and J. Stewart. 2014. General Sky Models for Illuminating Terrains. *International Journal of Geographical Information Science* 28(2): 383-406.

Kennelly, P. 2013. Relating GIS&T and Project Management Bodies of Knowledge to Projects Perceived as Successes. *The URISA Journal* 25(1): 5-17.

Kennelly, P. 2012. Cross-Hatched Shadow Line Maps. *The Cartographic Journal* 49(2): 135-142.

Kennelly, P. 2011. Landscape Volumetrics and Visualizations of the Butte Mining District, Montana. *Environmental and Engineering Geoscience* XVII(3): 213-226.

Stewart, J. and P. Kennelly. 2010. Illuminated Choropleth Maps. *Annals of the Association of American Geographers*. 100(3): 513-534.

Takeuchi, K.* and P. Kennelly. 2010. iSeismometer: A Geoscientific iPhone Application. *Computers and Geosciences*. 36 :573-575.

Gammons C., T. Duaiame, S. Parker, S. Poulson, and P. Kennelly. 2010. Geochemistry and Stable Isotope Investigation of Acid Mine Drainage Associated with Abandoned Coal Mines in Central Montana, USA. *Chemical Geology*. 269: 100-112.

- Kennelly, P. 2009. An Online Social Networking Approach to Reinforce Learning of Rocks and Minerals. *Journal of Geoscience Education*. **57**(1): 33-40.
- Kennelly, P. 2008. Terrain Maps Displaying Hill-shading with Curvature. *Geomorphology* **102**: 567-577.
- Kennelly, P. 2007. Creating and Displaying Virtual Silicate Structures Using Geographic Information Systems. *Journal of Geoscience Education*, **55**(3): 235-243.
- Kennelly, P. and A. J. Kimerling. 2006. Non-Photorealistic Rendering and Terrain Representation. *Cartographic Perspective*, no. **54**: 4 - 23.
- Kennelly, P. and J. Stewart. 2006. A Uniform Sky Model to Enhance Shading of Terrain and Urban Elevation Models. *Cartography and Geographic Information Science*, **33**(1): 21-36.
- Kennelly, P. and A. J. Kimerling. 2004. Hillshading of Terrain Using Layer Tints with Aspect-Variant Luminosity. *Cartography and Geographic Information Science*, **31**(2): 67-77.
- Kennelly, P. 2002. Hillshading with Oriented Halftones. *Cartographic Perspectives*, no. **43**: 24-41.
- Kennelly, P. 2002. GIS Applications to Historical Cartographic Methods to Improve the Understanding & Visualization of Contours. *Journal of Geoscience Education*, **50**(4): 428-436.
- Kennelly, P. and A. J. Kimerling. 2001. Modifications of Tanaka's Illuminated Contour Method. *Cartography and Geographic Information Science*. **28**(2): 111-123.
- Kennelly, P. and C. Chase. 1989. Flexure and Isostatic Residual Gravity of the Sierra Nevada. *Journal of Geophysical Research*, **94**: 1759-1764.

PEER-REVIEWED BOOK CHAPTER & MAP

- Kennelly, P. and J. Stewart. 2015. "Relief Shading with Sky Models." In *Mountain Cartography: 16 Years ICA Commission on Mountain Cartography (1999-2015)* (Karel Kris, Editor). Series on Geography and Cartography (Volume 21); Institute for Geography and Regional Research, University of Vienna, Cartography und Geoinformation, Vienna, Austria.
- Duaine, T, P. Kennelly, and P. Thale. 2004. Butte Montana: Richest Hill on Earth. *Montana Bureau of Mines and Geology Miscellaneous Contribution 19*, 1 plate, scale 1:9,000.

TECHNICAL AND TRADE PUBLICATIONS (* denotes student)

- Takeuchi, K.* and P. Kennelly. 2010. Creating Mapping Applications for the iPhone. *Cartographic Perspectives* no. **66**: 41-54.
- Kennelly, P. 2007. Not Mapping our World: Visualizing Nongeographic Information in GIS. *ArcUser*. **10**(3) 68-69.
- Gross, S.* and P. Kennelly. 2005. Virtual Campus 101: A Primer for Creating 3-D Models in ArcScene. *ArcUser*. **8**(2) 26-29.
- Kennelly, P. 2003. Creating Three-Dimensional Displays with ArcScene. *ArcUser*. **6**(1) 58-60.
- Kennelly, P. and A. J. Kimerling. 2001. Hillshading Alternatives: New Tools Produce Classic Cartographic Effects. *ArcUser*. **4**(2): 46-49.
- Kennelly, P. and A. J. Kimerling. 2000. Desktop hachure maps from Digital Elevation Models. *Cartographic Perspectives* no. **37**: 78-81.

BOOK REVIEWS

- Kennelly, P. 2010. *The GIS Management Handbook* by Peter L. Croswell. Kessey Dewitt Publications: Frankfort, Kentucky. 2009. *The GIS Professional*, **235**: 6-7.
- Kennelly, P. 2009. *The Geography of Bliss* by Eric Weiner. Eric Weiner: New York, NY. 2008. *Professional Geographer*, **61**(2): 265-268.
- Kennelly, P. 2007. *Introduction to Geographic Information Systems* (4th Edition) by Kang-tsung Chang. McGraw-Hill: New York, NY. 2006. *Photogrammetric Engineering and Remote Sensing*, **73**(6): 610.

TECHNICAL REPORTS AND PUBLISHED PROCEEDINGS

- Kennelly, P. and C. League. 2015. Modified Helix Structures for Visualizing Maximum Daily Temperature Data. *Proceedings of the 27th International Cartographic Conference*.
- Kennelly, P. and J. Stewart. 2013. The Application and Effects of Sky Models on Hill-shading. *Proceedings of the 26th International Cartographic Conference*.
- Kennelly, P. 2011. Illuminated Choropleth Maps. *Proceedings of the 25th International Cartographic Conference*.
- Kennelly, P. 2009. Hill-shading techniques to enhance terrain maps. *Proceedings of the 24th International Cartographic Conference*.
- Kennelly, P. 2002. Visualizing the uncertainty of geologic maps. *Digital Mapping Techniques '02 -- Workshop Proceedings, U.S. Geological Survey Open-File Report 02-370*, D.R. Soller, ed.
- Kennelly, P., and G. Willis. 2002. The I-Team Initiative and geology as a Framework Layer. *Digital Mapping Techniques '02 -- Workshop Proceedings, U.S. Geological Survey Open-File Report 02-370*, D.R. Soller, ed.
- Wilde, E., K. Sandau, P. Kennelly, and D. Lopez. 2002. Compilation of Landslide Locations Maps and Index for Identification of Slide-Prone Areas: A Pilot Study for the Butte District, *Montana Bureau of Mines and Geology Open-File Report 472*, 142 page(s).
- Kennelly, P. and A. J. Kimerling. 2002. Hillshading with contours. *International Cartographic Association -- Mountain Cartography Workshop Proceedings*.
- Kennelly, P., T. Duaine, and F. Schmidt. 2002. Development of an Internet Mapping Application to Allow Spatial Queries and Data Extraction from the Montana Bureau of Mines and Geology (MBMG) Abandoned/Inactive Mine Database. *Montana University System Water Center Report 215*.
- Kennelly P., and T. Donato. 2001. Hydrologic Features of the Potential Coal-Bed Methane Development Area of the Powder River Basin, *Montana, Montana Bureau of Mines and Geology Open-File Report 448*, 1 plate, scale 1:200,000.
- Kennelly, P. and T. Donato. 2001. Development of a GIS for Analyzing and Mapping Ground-Water Elements Related to Coal-Bed Methane Production. *Montana University System Water Center Report 208*.
- Kennelly, P. 2001. Three dimensional representations of aeromagnetic and isostatic residual gravity surfaces with geology in Montana. *Digital Mapping Techniques '01 -- Workshop Proceedings, U.S. Geological Survey Open-File Report, 01-223*, D.R. Soller, ed.
- Kennelly, P., and M. Stickney. 2000. Use of GIS for visualizing earthquake epicenters, hypocenters, faults and lineaments. *Digital Mapping Techniques '00 -- Workshop Proceedings, U.S. Geological Survey Open-File Report 00-325*, D.R. Soller, ed.

COURSE INSTRUCTION

LIU Post (2003 – Present)

Earth Science 700:	Research Problems
Earth Science 514:	The Earth Environment II
Earth Science 513:	The Earth Environment I
Earth Science 502:	GIS Applications [Blended format]
Earth Science 501:	Mapping Environmental Data with GIS [Blended format]
Earth Science 81:	Mapping Earth with Computers
Earth Science 2:	Earth Science 2 [Blended and face-to-face formats]
Earth Science 1:	Earth Science 1 [Blended format]
Environ. Science 708:	Research & Thesis
Environ. Science 707:	Research & Thesis
Environ. Science 702:	Internship
Geography 330:	Imaginative Mapping [Honors]
Geography 18:	Technical Issues in GIS
Geography 17:	Introduction to GIS
Geology 522:	Structural Geology
Geology 13:	Structural Geology
Geology 1:	The Dynamic Earth [Blended format]
GIS 501:	Introduction to GIS [Online format]

Penn State University (2004 – Present)

Geography 596	Individual Studies (Capstone project) [Online format]
Geography 584	Geospatial Technology Project Mgmt. [Online format]
Geography 483	Elements of GIS, Part 1 [Online format]

Montana Tech of the University of Montana (1997-1999)

GIS 220	GIS Acquisition
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Oregon State University (1995 -1996)

Geography 265	GIS Practicum
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STUDENT ADVISEMENT

Panarese, Nancy. M.S. in Environmental Science. Spring, 2010. Spatial and temporal analysis of nitrogen concentrations in the Great South Bay, New York.

Wetherall, Johanna. M.S. in Environmental Science. (Reader) Spring, 2010. Seasonal Trends in Dissolved Oxygen Levels in the Oceanside Marine Nature Study Area, South Shore Estuary Reserve, New York.

Neidich-Ryder, Carole. M.S. in Earth Science. Spring, 2010. Mapping potential and actual prairie ecosystems in the Hempstead Plains, New York.

Davidow, Scott. M.S. in Environmental Studies. Spring, 2009. A Phase II Environmental Investigation of a Former Apartment Building Site, Brooklyn, New York.

Gabay, Eugene. MS in Environmental Studies. Spring, 2009. Identification and Delineation of Three Chlorinated Solvent Groundwater Plumes in Bay Shore, New York.

Basu Mallick, Sanchita. MS in Environmental Studies. Spring, 2007. Assessing the Impact of Land Use / Land Cover in Water Quality for Priority Stream Segments of the Elizabeth River, New Jersey.

Borg, Melisa. MS in Environmental Studies. Summer, 2005. Mapping water quality from the Suffolk County Water Authority (New York) groundwater database.

Gross, Suzanne. BS Honors Thesis in Information Management Technology. Fall, 2004. Unleashing the potential of Locational-Based Services.

DiLauro, Garvis. MS in Environmental Management. Spring, 2004. Identifying environmental site conditions with a customized GIS application, Town of Huntington, New York.

GRANTSMANSHIP/FUND ACQUISITION

Academic grant proposals

“Interdisciplinary modules as pre-service research experiences for secondary STEM educators (IMPRESS-Ed)” (with Michael Kavic (PI) et al.)

NASA \$498,776 for 3 yrs. (2016 – 2019)
NNH14ZHA001N-MOO Status: Selectable pending

“A geology field exercise using a customized iPad app” (with Kiichi Takeuchi, Vic DiVenere, and Lillian Hess-Tanguay)

LIU Office of Academic Affairs \$3,850 for 1 yr. (2012 - 2013)
Teaching with Technology Initiative Status: Awarded

“Building a network and evaluating response times for a smartphone-based earthquake early warning system (EWS)” (with Kiichi Takeuchi)

Department of the Interior \$59,974 for 1 yr. (2010)
US Geological Survey Status: Not awarded

“A blended online/classroom synchronous learning model for introductory Earth science education”

LIU Office of Academic Affairs \$2,660 for 1 yr. (2007)
Teaching with Technology Initiative Status: Not awarded

“Portable environmental computer teaching and research lab” (with Matthew Draud, Joan Shields, and Michael Rook)

State of New York \$59,790 for 1 yr. (2007)
Special Legislative Grant Status: Not awarded

“Methods to incorporate GIS technology into Montana’s K-12 earth science education program”

Montana Tech \$5,000 for 2 yrs. (2001-2002)
New Faculty Seed Grant Status: Awarded

“An internet mapping application for spatial queries and data extraction from the MBMG abandoned/inactive mine database” (with Fred Schmidt)

Department of the Interior \$11,000 for 1 yr. (2001)
Montana Water Center Status: Awarded

“GIS analysis to study the effects of coal-bed methane production on the groundwater aquifer of southeastern Montana” (with Wayne Van Voast and Paul Thale)

Department of the Interior \$10,000 for 1 yr. (2000)
Montana Water Center Status: Awarded

Competitive contracts awarded – MBMG and David Evans

US Geological Survey (STATEMAP) GIS Portion: \$72,000 of \$221,000
Nat’l Coop. Geologic Mapping Program (MT) GIS Investigator at MT Tech

Montana Dept. of Transportation (MDT) GIS Landslide Mapping (MT)	GIS Portion: \$75,000 of \$150,000 GIS Investigator at MT Tech
NOAA Nautical Chart Production (CA)	GIS Portion: \$30,000 of \$1,500,000 GIS Investigator at DEA Inc.
Wash. Dept. of Transportation (WDOT) Transportation Corridor Analysis (WA)	GIS Portion: \$25,000 of \$150,000 GIS Investigator at DEA Inc.
Bonneville Power Administration (BPA) Utility Corridor Analysis (OR)	GIS Portion: \$20,000 of \$50,000 GIS Investigator at DEA Inc.
Scappoose Bay Watershed Council Watershed Analysis (OR)	GIS Portion: \$18,000 of \$40,000 GIS Investigator at DEA Inc.

Subcontracts awarded – MBMG and David Evans

NASA via Univ of MT EOS Education Project Lewis & Clark GIS Data Capture (MT)	Primary Investigator at MT Tech \$23,000
Oregon DOT Corridor Analysis US 26, US 30, & OR35 (OR)	Project Manager at DEA Inc. \$40,000
US Forest Service Watershed Analyses Malheur Headwaters (OR) S. Deep Creek (WA) Deer Creek (OR) Bear Valley (ID)	GIS Investigator at DEA Inc. GIS Portion: \$20,000 of \$40,000 GIS Portion: \$19,000 of \$40,000 GIS Portion: \$18,000 of \$40,000 GIS Portion: \$18,000 of \$40,000

PROFESSIONAL, UNIVERSITY, AND COMMUNITY SERVICE

- Editor of *Cartographic Perspectives*, a peer-reviewed journal of the North American Cartographic Information Society (1/11 – **Present**)
- Editorial Board of *The Cartographic Journal*, published by the British Cartographic Society (9/09 – **Present**)
- Chair of the Cartography Specialty Group of the Association of American Geographers (4/15 – **Present**)
- U.S. National Committee Member for the International Cartographic Association (3/16 – **Present**)
- Service/Emotional Support Animal Request Review Committee (11/15 – **Present**)
- Sustainability Committee at LIU Post (5/13 – **Present**)
- Personnel Committee [Dr. Azad Gucwa – Assistant Professor of Biomedical Sciences] (11/15 - **Present**)
- Board Member of PWGreen, an environmental conservation/education nonprofit, volunteer-run organization (1/14 – 5/16)
- Strategic Planning's Taskforce on Online Education (New Programs Group) at LIU (2/15 – 7/15)
- Academic Standing Committee at LIU Post (9/03 – 9/07 & 9/10 – 6/15)
- Academic Misconduct Committee at LIU Post (9/13 – 6/15)
- Personnel Committee [Dr. Kathy Isoldi – Assistant Professor of Nutrition] (9/10 – 5/16)
- Personnel Committee [Dr. Barbara Shorter – Associate Professor of Nutrition] (9/14 – 5/15)
- Personnel Committee [Dr. Mark Pires – Associate Professor of Geography] (9/13 – 5/14)
- Acting Chair, Department of Earth and Environmental Science (1/14 – 5/14)
- Associate Editor of *The Journal of Maps* (10/09 – 1/15)

- Publications Committee of the International Cartographic Association (5/12 – 8/13)
- Planning Committee - Teaching with Technology Institute at LIU (2/08 – 6/13)
- Middle States Chapter 1a Working Group at LIU Post (5/11 – 5/13)
- Middle States Chapter 4 Working Group at LIU Post (2/11 – 5/13)
- Co-organizer, US Department of Labor initiative with URISA to develop a Geospatial Management Competency Model (2/11 – 10/12)
- Web Learning Project at LIU (6/09 – 7/12)
- Core Curriculum Committee at LIU Post (9/10 – 6/11)
- Editorial Board of *Cartographic Perspectives* (3/07 – 12/10)
- Steering Committee – Web Learning Project at LIU (6/09 – 9/10)
- Admissions Committee (Chair) at LIU Post (9/07 – 9/10)
- Task Force - Web-Mediated Instruction at LIU (9/08 – 6/09)
- Designs, Systems and Learning for the 21st Century (DSL 21) a technology & learning initiative at LIU Post (9/10 – 7/11)
- Online Learning Group at LIU Post (9/06 – 9/08)
- Personnel Search Committee – Instructional Designer - LIU Post (9/10- 1/11)
- Personnel Search Committee - Dept of Nutrition (2/10- 6/10)
- Personnel Search Committee - Dept. of Earth & Env. Science (1/03 – 8/03)
- English Conversation Partner at LIU Post (2/06 – 12/09)
- Publications Committee at Montana Tech (10/99 – 12/02)
- Web Committee at Montana Tech (10/99 – 12/02)
- State's Vice-Chair, Montana Interagency GIS Technology Work Group (1/02 – 12/02)
- State's Chair, FGDC Implementation Team for Montana geology framework layer (6/01 – 12/02)
- Director, GIS Educational Outreach Program at Montana Tech (9/01 – 12/02)
- Coordinator, Montana Tech ESRI site license (10/99 – 12/02)
- Co-implementer the Geoscience Outreach Program at the MBMG (9/01 – 12/02)
- Participant in Butte GIS education work group with local K-12 teachers (1/01 – 12/02)
- Volunteer for Univ. of MT EOS Education Project (9/00 – 12/02)

PROFESSIONAL PRESENTATIONS (Presenter(s) in bold) (* denotes student)

Kennelly, P. 2016. Generalizing terrain representations with vector sums. *North American Cartographic Information Society Annual Conference*. Colorado Springs, CO.

Kennelly, P. 2016. Hand-drawn Exercises for Learning GIS. *Esri Education User's Conference (Ed UC) Abstract*. San Diego, CA.

Kennelly, P. 2016. Smoothing Relief Shading in Vector Space. *10th International Cartographic Association Mountain Cartography Workshop*. Berchtesgaden, GERMANY.

Kennelly, P. 2016. Horizontal Hachures for Rendering Terrain. *Abstract of Assn. of American Geographers Annual Conference*. San Francisco, CA.

Field, K. and P. Kennelly. 2015. Taking terrain to new heights with ArcGIS. *North American Cartographic Information Society Annual Conference*. Minneapolis, MN.

Kennelly, P. and C. League. 2015. Modified Helix Structures for Visualizing Maximum Daily Temperature Data. *27th International Cartography Conference*. Rio de Janeiro, BRAZIL.

Field, K. and P. Kennelly. 2015. Terrain Mapping Beyond the Defaults. *27th International Cartography Conference*. Rio de Janeiro, BRAZIL.

- Kennelly, P.** 2015. Horizontal and Vertical Hachures. *Esri International User's Conference Abstract*. San Diego, CA.
- Kennelly, P.** 2015. Cartographic Perspectives on Education. *Esri Education User's Conference (Ed UC) Abstract*. San Diego, CA.
- Kennelly, P.** and C. League. 2015. Spatiotemporal Visualizations Using a Modified Helix Structure. *Abstract of Assn. of American Geographers Annual Conference*. Chicago, IL.
- Kennelly, P.** 2015. Advanced Mapping Techniques for Three Dimensional Surfaces. *Esri Petroleum User's Group (PUG) Conference Abstract*. Houston, TX.
- League, C. and **P. Kennelly**. 2014. Spatial-Temporal Displays of Daily Climate Data. *North American Cartographic Information Society Annual Conference*. Pittsburgh, PA.
- Kennelly, P.** 2014. Rendering Terrain with Horizontal Hachures. *AutoCarto International Symposium on Automated Cartography*. Pittsburgh, PA.
- Kennelly, P.** 2014. Horizontal Hachures. *9th International Cartographic Association Mountain Cartography Workshop*. Banff, CANADA.
- Kennelly, P.**, K. Takeuchi, V. DiVenere, and L. Hess. 2013. A Self-Guided Geologic Field Trip on Campus Using a Customized iPad App. *Geological Society of America, Abstracts with Programs*. Denver, CO.
- Bannister, R.*** and P. Kennelly. 2013. Incorporating Professional Judgment into Groundwater Contouring Tools within ArcGIS. *Geological Society of America, Abstracts with Programs*. Denver, CO.
- Kennelly, P.** and J. Stewart. 2013. Relating Hill Shading to Terrain Metrics. *North American Cartographic Information Society Annual Conference*. Greenville, SC.
- Kennelly, P.** and J. Stewart. 2013. The Application and Effects of Sky Models on Hill Shading. *26th International Cartography Conference*. Dresden, GERMANY.
- Kennelly, P.** and J. Stewart. 2013. Hill Shading with Sky Models in ArcGIS. *Esri International User's Conference Abstract*. San Diego, CA.
- Kennelly, P.**, K. Takeuchi, C. League, and G. Narra. 2013. Creating and Using Recorded Video Demonstrations from ArcGIS for Online Learning. *Esri Educational User's Conference (Ed UC) Abstract*. San Diego, CA.
- Kennelly, P.**, K. Takeuchi, V. DiVenere, and L. Hess. 2013. A Customized iPad App for a Geologic Field Exercise. *Abstract of Assn. of American Geographers Annual Conference*. Los Angeles, CA.
- Kennelly, P.**, C. League, K. Takeuchi, and G. Narra. 2012. The Business of Creating a New Online Certificate Program. *GIS-Pro: URISA's 50th Anniversary Conference*. Portland, OR.
- Kennelly, P.** 2012. Rendering Terrain with Shadow Lines in ArcGIS. *Esri International User's Conference Abstract*. San Diego, CA.
- Kennelly, P.**, C. League, K. Takeuchi, and G. Narra. 2012. Designing an Online Certificate Program in "Mobile GIS Applications Development". *Esri Educational User's Conference (Ed UC) Abstract*. San Diego, CA.
- Takeuchi, K.** and P. Kennelly. 2012. Mapping Wifi Signal Strength Using the iPad: A GIS Class Project. *Abstract of Assn. of American Geographers Annual Conference*. New York, NY.

- Ryder, C.** and P. Kennelly. 2012. Mapping Prairie Ecosystems on the Hempstead Plains. *Abstract of Assn. of American Geographers Annual Conference*. New York, NY.
- Kennelly, P.** 2012. Cartographic Representations of Terrain with Cross-hatched Shadow Maps. *Abstract of Assn. of American Geographers Annual Conference*. New York, NY.
- Kennelly, P.** 2011. Cross-hatched Shadow Maps. *North American Cartographic Information Society Annual Conference*. Madison, WI.
- Kennelly, P.** and J. Stewart. 2011. Illuminated Choropleth Maps. *25th International Cartography Conference*. Paris, FRANCE.
- Kennelly, P.** and J. Stewart. 2011. Hill-shadings from Sky Illumination Models. *Abstract of Assn. of American Geographers Annual Conference*. Seattle, WA.
- Ciabocchi, E., V. Dent, P. Kennelly, N. Marksbury, D. Mondal.** 2011. Creating a Multi-campus iPad Learning Community at Long Island University. *Northeast Regional Computing Program (NERCOMP) Conference*. Providence, RI.
- Kennelly, P.** and J. Stewart. 2010. Illuminating Terrain Using Sky Sampling Models. *North American Cartographic Information Society Annual Conference*. St Petersburg, FL.
- Kennelly, P.** and J. Stewart. 2010. An Application for Sampling Sky Models and Illuminating Terrain. *7th International Cartographic Association Mountain Cartography Workshop*. Borşa, ROMANIA.
- Kennelly, P.** 2009. Hill-shading Techniques to Enhance Details of Terrain. *24th International Cartography Conference*. Santiago, CHILE.
- Takeuchi, K.* and **P. Kennelly.** 2009. Maps for Apps. *North American Cartographic Information Society Annual Conference*. Sacramento, CA.
- Kennelly, P.** 2008. Butte, Montana – Reflected in Cartography. *North American Cartographic Information Society Annual Conference*. Missoula, MT.
- Kennelly, P.** 2008. Using Curvature to Enhance Geomorphic Features in Cartographic Displays. *ESRI International User's Conference Abstract*. San Diego, CA.
- Kennelly, P.** 2008. Student Reports on GIS Projects – Successes, Failures, and Pitfalls. *ESRI Educational User's Conference (EdUC) Abstract*. San Diego, CA.
- Kennelly, P.** 2007. Elevation Derivatives Displayed with Hillshading. *North American Cartographic Information Society Annual Conference*. St Louis, MO.
- Kennelly, P.** and J. Stewart. 2007. Illumination Models for Cartographic Displays. *Abstract of Assn. of American Geographers Annual Conference*. San Francisco, CA
- Kennelly, P., J. Ma, T. Patterson ,A. Tait, and E. Wingert.** 2006. Organizer of 3-D Mapping Panel Discussion. *North American Cartographic Information Society Annual Conference*. Madison, WI.
- Botsford, W., P. Kennelly,** T. Duaiame, and K. Sandau. 2006. Locating Monitoring Wells and GIS Modeling to Evaluate Source Control Strategies to Address Acid Mine Drainage at Belt Montana. *National Association of Abandoned Mine Land Programs (NAAML), 28th Annual Conference*. Billings, MT.
- Borg, M.*, **P. Kennelly,** B Bennington and L. Tanguay Hess. 2005. Mapping Intentionally Uncertain Groundwater Data with Geographic Information Systems. *Geological Society of America, Abstracts with Programs* **37**:7. Salt Lake City, UT.

- Stewart, J. and **P. Kennelly**. 2005. Shading Choropleth Maps for Three Dimensional Effect. *North American Cartographic Information Society Annual Conference*. Salt Lake City, UT.
- Botsford, W., P. Kennelly**, and T. Duaiame. 2005. Source Control of Acid Mine Drainage at Belt, Montana and Three Dimensional Modeling with GIS. *National Association of Abandoned Mine Land Programs (NAAML P), 27th Annual Conference*. Bristol, VA.
- Kennelly, P.** and J. Stewart. 2004. Cloudy Day Illumination of LiDAR Data. *North American Cartographic Information Society Annual Conference*. Portland, ME
- Kennelly, P.**, and A.J. Kimerling. 2004. Non-Photorealistic Rendering: A Cartographic Perspective. *Abstract of Assn. of American Geographers Annual Conference*. Philadelphia, PA.
- Kennelly, P.** and A.J. Kimerling. 2003. Hillshading of Terrain Using Layer Tints with Aspect-Variant Luminosity. *North American Cartographic Information Society Annual Conference*. Jacksonville, FL.
- Kennelly, P.**, and A.J. Kimerling. 2002. Using GIS to Create Illuminated and Inclined Contours. *Association of American Geographers Great Plains/Rocky Mountain Regional Meeting*. Missoula, MT.
- Wheaton, J., **T. Donato**, P. Kennelly, W. Van Voast, and P. Thale. 2002. Using GIS to analyze and map ground-water elements related to coal-bed methane development. *American Water Resources Association, Montana Section, 19th Annual Conference*.
- Porter, K.**, P. Kennelly and E. Deal. 2002. Geologic maps for Montana. *Tobacco Root Geological Society 27th Annual Field Conference*. Virginia City, MT.
- Kennelly, P.** and A. J. Kimerling. 2002. Hillshading with points and lines. *ESRI International User's Conference Abstract*. San Diego, CA.
- Kennelly, P.** 2002. First steps in developing K-12 GIS-based earth science curriculum in Montana. *ESRI Educational User's Conference (EdUC) Abstract*. San Diego, CA.
- Porter, K.**, P. Kennelly, and E. Deal. 2002. Montana's geologic mapping program – the role of STATEMAP. *Geological Society of America, Abstracts with Programs*. Denver, CO.
- Kennelly, P.** 2002. Reconstructing Butte, 1895. *The 2002 Intermountain GIS Conference*. Big Sky, MT.
- Kennelly, P.** 2001. The Butte Mining District, Montana: Combining Spatial Information from Past and Present with GIS. *Mining History Association 12th Annual Meeting*. Butte, MT.
- Kennelly, P.** 2001. Cartography for Art's Sake: Mapping Butte, Montana's Berkeley Pit for a Multimedia Art Exhibit. *The 2001 Intermountain GIS Conference*. Boise, ID.
- Kennelly, P.** and A. J. Kimerling. 2001. Illuminating contours with computer-assisted cartography. *Abstract of Assn. of American Geographers annual conference*. New York, NY.
- Kennelly, P.**, A. R. Kiester, D. White, and A. J. Kimerling. 2000. Effects of scale on biodiversity analysis in Oregon. *Abstract of Assn. of American Geographers annual conference*. Pittsburgh, PA.
- Csuti, B., **P. Kennelly**, S. M. Meyers and K. Sahr. 1997. Current status of biodiversity indicators using GIS. *ESRI User's Conference Abstract*. San Diego, CA.
- Kennelly, P.**, B. Csuti, D. White, A. R. Kiester, and A. J. Kimerling. 1997. Effects of ecoregion boundaries on biodiversity mapping of prioritization areas in Oregon. *Proceedings of the Oregon Academy of Science*. **33**:29-30. Portland, OR.

Smith, M., J.F. Sarg, P. Kennelly, and M. Senich. 1992. In search of the subtle trap: The Silurian of the Permian Basin. *Exxon Distinguished Lecture Series*. Exxon Exploration Company. (Lecture given at all domestic Exxon Exploration and Production offices).

Kennelly, P. and C. Chase. 1986. Flexure and isostatic residual gravity of the Sierra Nevada. *Eos, Transactions, American Geophysical Union*. **67**:1189. San Francisco, CA.

Hudak, P., W. Brewer, and P. Kennelly. 1986. Strained crinoid ossicles and decollement tectonics in the Appalachian Plateau of northwestern Pennsylvania. *Geological Society of America, Abstracts with Programs*. **18**:23. San Antonio, TX.

SHORT COURSES TAUGHT & WORKSHOPS ADVISED

2006, June. Advisor, *Teaching and Learning with GIS*. Five-day workshop for the National Institute for Technology in Liberal Arts Education (NITLE), The Center for Educational Technology, Middlebury College, Middlebury, VT.

2006, March. Instructor, *Introducing GIS*. Three-day short course for faculty and staff at Hamilton College and Colgate College, NY. Taught for the National Institute for Technology in Liberal Arts Education (NITLE), Clinton, NY.

2004, August. Advisor, *Teaching with GIS in the Liberal Arts – Workshop*. Five-day workshop for Midwest Instructional Technology Center (MITC), at Colorado College, Colorado Springs, CO.

2004, June. Advisor, *Teaching and Learning with GIS*. Five-day workshop for the National Institute for Technology in Liberal Arts Education (NITLE), The Center for Educational Technology, Middlebury College, Middlebury, VT.

2002, October. Instructor, *Introduction to GIS*. Crow Agency, MT.

2002, September. Instructor, *Introduction to GIS*. Fort Belknap Reservation, MT.

2002, June. Instructor, *Gear Up Program* to help low-income middle school students prepare to succeed in college. Butte, MT.

2001, May. Instructor, “GIS for Watershed Mapping and Analyses.” *Montana Water Summit*, Judson Mead Geologic Field Station of Indiana University, Cardwell, MT.

2000, March. Instructor, “Introduction to Geographic Information Systems Short Course.” Montana Bureau of Mines and Geology, Butte, MT

LECTURES PRESENTED

2016, February. Invited seminar speaker, “Spatial Analysis and Cartographic Displays for Environmental Science.” *Department of Life and Environmental Sciences, Università Politecnica delle Marche*, Ancona, ITALY

2015, February. Invited seminar speaker “Cartographic Terrain Representation: Traditions, Techniques, and Tools.” *Department of Geography and Resource Management seminar series, Chinese University of Hong Kong*, CHINA

2013, June. Speaker (with Kiichi Takeuchi, Vic DiVenere, and Lillian Hess), “A Customized iPad App for a Geologic Field Exercise” *Long Island University Teaching with Technology Summer Institute*, Brookville, NY

2012, July. Speaker (with Gavi Narra and Chris League), “Designing an Online Certificate Program in ‘Mobile GIS Applications Development’” *Long Island University Teaching with Technology Summer Institute*, Brookville, NY

- 2011, July. Speaker (with Kiichi Takeuchi), "Mapping Wifi Signal Strength Using the iPad: A GIS Class Project" *Long Island University Teaching with Technology Summer Institute*, Brookville, NY
- 2011, March. Invited lecturer, "Terrain Representations" *Advanced Cartography course (Dr. Cynthia Brewer, Instructor), Department of Geography, Penn State University*, University Park, PA
- 2009, June. Speaker (with George Andreadis), "Linkedin: Connecting and Team Building" *Long Island University Teaching with Technology Summer Institute*, Brookville, NY
- 2009, February and November, 2008. Speaker, "Living the iLife: Student Multimedia Travelogues Created with iWeb" *Long Island University Teaching with Technology Institute*, Brookville and Brooklyn, NY
- 2008, February. Speaker, "Using Social Networking to Engage Students in Science" *Long Island University Teaching with Technology Institute*, Brookville, NY
- 2007, September. Speaker, "Illumination Models for Cartographic Displays." *C.W. Post Science Division's Brown Bag Discussion Series in the Physical Sciences*, Brookville, NY
- 2006, September. Featured Speaker, "C.W. Post 3-D Virtual Model." *C.W. Post All-Campus Meeting*, Brookville, NY
- 2005, November. Presenter, "500 Years of Drawing Mountains: Computer Mapping Applications for a Tired Hand." *The Honors Program of the C.W. Post Campus of Long Island University Academic Conference*, Brookville, NY
- 2005, October. Speaker, "Terrain Representation and Non-Photorealistic Rendering: Tuning in to the Other NPR." *The Pennsylvania State University Department of Geography's Coffee Hour*, University Park, PA
- 2004, August. Presenter, "Silicate mineral structures in 3D GIS: A visualization tool for earth science." *Teaching with GIS in the Liberal Arts - Symposium*. Symposium for Midwest Instructional Technology Center (MITC), at Colorado College, Colorado Springs, CO
- 2002, September. Presenter, "The changing topography of Butte, 1904-1991." *Butte Historical Society Lecture Series*, Butte, MT
- 2002, April. Presenter, "Water Quality Sampling with GIS." *Montana Educational Water Monitoring Coalition Workshop*, Theodore Roosevelt Memorial Ranch, Dupuyer, MT
- 2002, April. Presenter, "Cartographic Representations of Topography through History." *Lecture Series, Montana Bureau of Mines and Geology*, Butte, MT
- 2001, February. Presenter, "GIS and Geology: Data Input, Analysis and Display." *University of Montana Geology Seminar*, Missoula, MT
- 2000, August. Presenter, "Montana's Geology and GIS." *Geological Society of Ireland*, Dublin, IRELAND
- 2000, May. Presenter, "GIS Capabilities and Available Products." *Office of Surface Mining Electronic Permitting Seminar*, Billings, MT

REVIEWER FOR PEER-REVIEWED MANUSCRIPTS, ETC. AND TEXTBOOKS

Peer-Reviewed Journal Manuscripts:

Annals of the Association of American Geographers

AUC Geographica

Cartographic Perspectives

The Cartographic Journal
Cartographica
Cartography and Geographic Information Science
Computers and Geosciences
Geomorphology
International Journal of Geographic Information Science
Natural Hazards
Papers of the Applied Geography Conferences
Proceedings of the Institution of Civil Engineers – Engineering Sustainability
Transactions in GIS

Peer-Reviewed Maps:

The Journal of Maps

Peer-Reviewed Conference Proceeding Manuscripts:

The Bridges Conference Proceedings: Mathematics, Music, Art, Architecture, Culture.
Institute for Electrical and Electronic Engineers (IEEE) Vis 2009

Peer-Reviewed Grants:

American Association for the Advancement of Science (AAAS) Research Competitiveness Program (RCP) (2013)
State Broadband Data and Development Grant Program (American Recovery and Reinvestment Act, National Telecommunications and Information Administration, U.S. Department of Commerce - 2009)

Textbooks:

Cambridge University Press (in Earth Science)
Flat World Knowledge (in Information Systems)
Prentice-Hall (in Geographic Information Science)
Sage Publications (in Social Research Methods)
The University of Chicago Press (in Cartography)

FEATURED MAPS & GIS PRODUCTS

- 2016, ***Cartographic Grounds: Projecting the Landscape Imaginary*** – Exhibition at the Accademia di Architettura di Mendrisio, Switzerland 4/21/16 – 6/3/16. Design exhibit includes cross-hatched shadow line map of Mt. St. Helens by Kennelly (2012).
- 2016, **MapsWeLove.com** – Web site features full-color map of the Flaming Gorge Reservoir illuminated with an overcast sky from Kennelly and Stewart (2015).
- 2016, ***Esri Map Book, Volume 31 book cover*** – Book cover features map of the Flaming Gorge Reservoir illuminated with an overcast sky from Kennelly and Stewart (2015).
- 2016, ***Cartographic Grounds: Projecting the Landscape Imaginary*** - Jill Desimini, Princeton Architectural Press. Book includes cross-hatched shadow line map of Mt. St. Helens by Kennelly (2012).
- 2016, ***Dynamic Patterns: Visualizing Landscapes in an Ecological-Informational Age*** by Karen M'Closkey and Keith VanDerSys, Routledge. Book includes hachure map from Kennelly and Kimerling (2000).
- 2015, ***Mountain Cartography: 16 Years ICA Commission on Mountain Cartography (1999-2015) book cover map***. (Karel Kris, Editor). Cover features relief shading using sky models by Kennelly and Stewart (2015)

- 2012, ***Common Ground: Projecting the Landscape Imaginary*** – Exhibition at the Harvard University Graduate School of Design, 10/29/12 – 12/19/12. Design exhibit includes cross-hatched shadow line map of Mt. St. Helens by Kennelly (2012).
- 2008, ***Thematic Cartography and Geographic Visualization (3rd Edition)*** by Terry Slocum, Robert McMaster, Fritz Kessler & Hugh Howard, Prentice-Hall. Textbook includes diffuse illumination models applied to hillshading, illuminated contour map, hachure maps and GIS methodologies devised by Kennelly and Stewart (2006), Kennelly and Kimerling (2001), and Kennelly and Kimerling (2000).
- 2007, ***Physical Geology and the Environment (2nd Canadian Edition)*** by Charles Plummer, David McGeary, Diane Carlson, Carolyn Eyles and Nick Eyles. Textbook includes figure on imaging tetrahedral structures of silicate minerals with GIS.
- 2006, ***Cartography & Geographic Information Science journal cover*** (Vol. 33, No. 1). Cover features a digital elevation model (DEM) of the Schell Creek Range, Nevada using diffuse and point source illumination created by Kennelly and Stewart (2006).
- 2004, ***Cartography & Geographic Information Science journal cover*** (Vol. 31, No. 2). Cover features maps of the top of Hue-Saturation-Value (HSV) color space draped on a luminosity surface created by Kennelly and Kimerling (2004).
- 2002, ***Cartographic Perspectives journal cover*** (No. 43). Cover features map hillshaded with oriented halftone method devised by Kennelly(2002). Graphic design by Lou Cross.
- 2002, ***Journal of Geoscience Education journal cover*** (Vol. 50, No. 4). Cover features inclined contour map of the Highland Mts., Montana and illuminated contour map of the Cascade Mountains, Washington and Oregon.
- 2001, **National Park Service outdoor interpretive display**, Bighorn Canyon National Recreation Area, Montana. Geologic block diagrams illustrating the development of the Bighorn River as an entrenched river.
- 2001, ***Cartography & Geographic Information Science journal cover*** (Vol. 28, No. 2). Cover features Kennelly and Kimerling's (2001) illuminated contour map of the Cascade Mountains, Washington and Oregon.
- 2001, ***An Artist's View of the Berkeley Pit: Through the Lens of a Scientist*** - Multimedia art exhibit at the Center for Land Use Interpretation; Los Angeles, CA. Todd Trigsted's exhibit with 3D VRML models derived from GIS of topography and underground mine workings.
- 2000, ***Encyclopedia of Biodiversity*** (Simon A. Levin, Editor-in-Chief), Academic Press. Multi-scale species richness maps of Oregon from PhD research in "Species Diversity, Overview" chapter by A. Ross Kiester.