Jude Heathcliff Kastens jkastens@ku.edu

EDUCATION

August 2008	 Ph.D. Mathematics, University of Kansas, Lawrence, Kansas emphasis on statistics and geospatial numerical analysis 	
	Dissertation Title: Some New Developments on Two Separate Topics: Statistical Cross Validation and Floodplain Mapping	
July 1999	 M.A. Mathematics with Honors, University of Kansas, Lawrence, Kansas emphasis on time-frequency analysis and signal processing 	
	Thesis Title: A Review of Four Time-Frequency Distributions - nominated for George Robert Gross Outstanding Masters Project Award	
May 1996	B.A. Mathematics, University of Kansas, Lawrence, Kansas	
May 1996	B.S.E. Secondary Mathematics, University of Kansas, Lawrence, Kansas	

PROFESSIONAL EXPERIENCE

Assistant Research Professor

(2008 – present) Kansas Applied Remote Sensing (KARS) Program, University of Kansas, Lawrence, Kansas

Senior Research Assistant

(2004 – 2008) Kansas Applied Remote Sensing (KARS) Program, University of Kansas, Lawrence, Kansas

Research Assistant

(1998 – 2004) Kansas Applied Remote Sensing (KARS) Program, University of Kansas, Lawrence, Kansas

Responsibilities

- Lead or assist in the writing of grant proposals, frequently heading up components detailing technical issues and analytical methods
- Serve as the primary research analyst and/or project manager on all major remote sensing projects involving commercial partner TerraKans, Inc. (TKI) and TerraMetrics Agriculture, Inc. (TMAI) Oversee new research and remote sensing product development
- Oversee new research and remote sensing product development
- Coordinate joint projects with TKI's and TMAI's partners while serving as the primary point of contact
- Develop and implement land cover applications using advanced mathematical tools such as Fourier analysis, empirical mode decomposition, singular spectrum analysis, and other time series and spectral analysis methods
- Design, develop, and implement software for analysis of remotely sensed data
- Develop and implement remote sensing data processing procedures and algorithms
- Write technical and peer-reviewed texts
- Conduct advanced mathematical research relating remotely sensed information to surface hydrology, land cover characteristics, climate, agriculture, and economic information
- Provide general mathematical and statistical expertise to all employees of the Kansas Biological Survey (KBS) as needed
- Update, maintain, and monitor for quality several databases used by numerous scientists at KBS

Accomplishments

- Successfully completed projects while serving roles of PI, Project Manager, or Research Analyst
- Developed a stand-alone software package for conducting Fourier analysis on remotely sensed data _
- Wrote a technical appendix describing the application of Fourier analysis to time-series data sets
- Developed a procedure capable of exposing artificial interannual value drift in time series imagery
- Created a generalized algorithm capable of generating predictive models relating AVHRR NDVI data to any historical information (crop yields, pheasant populations, etc.)
- Developed methods, results, and recommendations used by the USDA to improve their nationwide grassland insurance program
- Developed novel mathematical model capable of floodplain identification, real-time flood extent mapping, and estimation of dam breach inundation extent; multiple State agencies (e.g., the Kansas Water Office, The Adjutant General's Department) benefit from applications of this work
- Developed stand-along software for applying new floodplain model described above
- Developed a novel mathematical model to facilitate transmission line corridor vegetation monitoring

Graduate Teaching Assistant

(1996 – 1999) Mathematics Department, University of Kansas, Lawrence, Kansas

Classes Taught

- MATH 122, Calculus II for engineers Spring 1998, Fall 1998 and Spring 1999 -
 - Fall 1997
- MATH 121, Calculus I for engineers MATH 104, Pre-calculus
 - Fall 1996 and Spring 1997

Research Assistant

(1994 – 1996) Geographic Research, Applications, and Information Laboratory (GRAIL), The University of Kansas, Lawrence, Kansas

Responsibilities

- Develop procedures and algorithms using ESRI ARC/INFO amls for automated GIS data base _ construction and analysis
- Project Manager (primarily on the SWIMS III project for Kansas EPA)
- Provide training and support to student workers
- Conduct manual line-lifting and digitizing in a GIS framework

Farmhand

(1986 – present) Kastens, Inc., Herndon, KS

Responsibilities

- Livestock management
- Crop production and harvest
- Equipment upkeep and record keeping
- General consultant providing mathematical expertise in support of precision agriculture techniques _

COMPUTER EXPERIENCE

Software	-	MATLAB, ERDAS Imagine, ESRI ARC/INFO, ArcMap, Adobe Photoshop
Programming	-	MATLAB, Visual C, C++, Visual Basic, Pascal
O/S	-	Windows 3.11, 95, 98, 2000, NT 4.0, XP, 7
		Solaris 1x and 2x, SGI

PUBLICATIONS

REVIEWED PUBLICATIONS

Williams, B., E. D'Amico, **J.H. Kastens**, J. Thorp, J. Flotemersch, and M. Thoms (2013). Automated riverine landscape characterization: GIS-based tools for watershed-scale research, assessment, and management. *Environmental Monitoring and Assessment*, 185: 7485-7499.

Brown, J.C., **J.H. Kastens**, A.C. Coutinho, D.C. Victoria, and C.R. Bishop (2013). Classifying Multiyear Agricultural Land Use Data from Mato Grosso Using Time-Series MODIS Vegetation Index Data. *Remote Sensing of Environment*, 130(3): 39-50.

Victoria, D.C., A.R. da Paz, A.C. Coutinho, **J.H. Kastens**, and J.C. Brown (2012). Cropland Area Estimates using MODIS NDVI time series in the state of Mato Grosso, Brazil. *Pesquisa Agropecuária Brasileira* (PAB), 47(9): 1270-1278.

Rowley, R.J., K.P. Price, and **J.H. Kastens** (2007). Remote Sensing and the Rancher. *Rangeland Ecology and Management*, 60: 359-368.

Wardlow, B.D., S.L. Egbert, and **J.H. Kastens** (2007). Analysis of Time-Series MODIS 250-Meter Vegetation Index Data for Crop Classification in the U.S. Central Great Plains. *Remote Sensing of Environment*, 108(3): 290-310.

Brown, J.C., W.E. Jepson, **J.H. Kastens**, B.D. Wardlow, J.M. Lomas, and K.P. Price (2007). High temporal resolution remote sensing of modern agricultural production and land modification in the Brazilian Amazon. *GIScience and Remote Sensing*, 44(2): 117-148.

Wardlow, B.D., **J.H. Kastens**, and S.L. Egbert (2006). Using USDA Crop Progress Data and MODIS Time-Series NDVI for Regional-Scale Evaluation of Greenup Onset Date. *Photogrammetric Engineering and Remote Sensing*, 72(11): 1225-1234. Recipient, Leica Geosystems Award for Best Scientific Paper in Remote Sensing, 2007, and John I. Davidson President's Award for Practical Papers, 2007.

Kastens, J.H., T.L. Kastens, D.L.A. Kastens, K.P. Price, E.A. Martinko, and R. Lee (2005). Image masking for crop yield forecasting using time series AVHRR NDVI imagery. *Remote Sensing of Environment*, 99(3): 341-356.

Breshears, D.D., N.S. Cobb, P.M. Rich, K.P. Price, C.D. Allen, R.G. Balice, W.H. Romme, **J.H. Kastens**, M.L. Floyd, J. Belnap, J.J. Anderson, O.B. Myers, and C.W. Meyer (2005). Regional vegetation die-off in response to global-change type drought. *Proceedings of the National Academy of Sciences (USA)*, 102(42): 15144-15148.

Kastens, J.H., M.E. Jakubauskas, D.E. Lerner (2003). Using temporal averaging to decouple annual and nonannual information in AVHRR NDVI time series. *IEEE Transactions on Geoscience and Remote Sensing*, 41(11): 2590-2594.

Jakubauskas, M.E., D.R. Legates, and **J.H. Kastens** (2002). Crop identification using harmonic analysis of timeseries AVHRR NDVI data. *Computers and Electronics in Agriculture*, 37(1-3): 127-139. Jakubauskas, M.E., D.L. Peterson, **J.H. Kastens**, and D.R. Legates (2002). Time Series Remote Sensing of Landscape-Vegetation Interactions in the Southern Great Plains. *Photogrammetric Engineering and Remote Sensing*, 68(10): 1021-1030.

Jakubauskas, M.E., D.R. Legates, and **J.H. Kastens** (2001). Harmonic analysis of time-series AVHRR NDVI data. *Photogrammetric Engineering and Remote Sensing*, 67(4): 461-470. Recipient, Boeing Autometric Award for Best Paper in Image Analysis and Interpretation, 2002.

NON-REVIEWED PUBLICATIONS

Huggins, D., M. Jakubauskas, and **J. Kastens** (2011). Lakes & Wetlands of the Great Plains. *LakeLine: A Publication of the North American Lake Management Society*, 31(4): 19-25.

MANUSCRIPTS SUBMITTED OR IN PREPARATION

Brown, J.C., **J.H. Kastens**, C.R. Bishop, A.C. Coutinho, and D.C. Victoria. Mapping Land Cover and Assessing Agricultural Intensification in Mato Grosso, Brazil. In preparation (to be submitted to *Remote Sensing of Environment*).

Peterson, D., **J.H. Kastens**, J. Whistler, S. Egbert, and J.C. Brown. Mapping Irrigated Lands in Kansas. In preparation (to be submitted to *Remote Sensing*).

Johnson, W.C., M.M. Goldade, **J.H. Kastens**, E. Lee, K.E. Dobbs, K.E., and G.L. Macpherson. Modeling flood inundation scenarios in Afghanistan. In preparation (to be submitted to *Geomorphology*)

CONFERENCE PROCEEDINGS

Alexandre Camargo Coutinho, Daniel de Castro Victoria, Adriano Rolim da Paz, J. Christopher Brown, **Jude Kastens**. Dynamics of agriculture in the soy production pole of the state of Mato Grosso. (forthcoming). Proceedings of the Brazilian Symposium of Remote Sensing, Curitiba, Brasil, 30 abril – 5 maio, 2011, INPE.

Alexandre C. Coutinho, John Christopher Brown, Daniel de C. Victoria, Adriano Rolim da Paz, **Jude H. Kastens**. Potential and limitations of monitoring of agricultural activity with MODIS satellite imagery. In Resumos expandidos do I Workshop de Integração Lavoura-Pecuária-Floresta em Rondônia, Vilhena, 24 a 28 abril, 2010 / editor, Vicente de Paulo Campos Godinho et al. Porto Velho: Embrapa Rondônia, 2010. Pp. 93-103.

Brown, J. Christopher, **Jude Kastens**, Brian Wardlow, Wendy Jepson, Alex Coutinho, Adriano Venturieri, John Lomas, Kevin Price. 2007. Using MODIS to detect cropping frequency variation in mechanized agriculture in Amazonia. Proceedings of the Brazilian Symposium of Remote Sensing, Florianópolis, Brasil, 21-26 abril 2007, INPE, p. 99-101.

Watts, T., J. Atwood, K. Price, and **J. Kastens** (2005). The Big Picture—Satellite Remote Sensing Applications in Rangeland Assessment and Crop Insurance. USDA Agricultural Outlook Forum 2005, February 24-25, 2005, Arlington, VA. Speech Booklet 2, 26 pp. (Invited paper)

Kastens, J.H., K.P. Price, D.L. Kastens and E.A. Martinko (2001). Forecasting Pre-harvest Crop Yields Using Time Series Analysis of AVHRR NDVI Composite Imagery. *Proceeding, Annual Convention, American Society of Photogrammetric Engineering and Remote Sensing*. St. Louis, Missouri, April 23 - 27.

Kastens, D.L., K.P. Price, **J.H. Kastens** and E.A. Martinko (2001). Using Crop Masks and Remotely Sensed Data to Develop Pre-harvest Forecasts of Winter Wheat Yields in Kansas. *Proceeding, Annual Convention, American Society of Photogrammetric Engineering and Remote Sensing*. St. Louis, Missouri, April 23 - 27.

Jakubauskas, M.E., D.R. Legates, and **J. Kastens** (2000). Crop identification using harmonic analysis of timeseries AVHRR NDVI data. ERIM Second International Conference on Geospatial Information in Agriculture and Forestry, January 10-12, 2000, Lake Buena Vista, FL.

PROJECTS AND AWARDS

Kastens, J.H., K.E. Dobbs, and Egbert, S.L. 2013. South Platte DEM Processing and SLIE Development. Riverside Technology, Inc. – \$23,790 (9/1/13-4/14/14).

Kastens, J.H., K.E. Dobbs, and Egbert, S.L. 2013. SLIE Database Setup and Query. Riverside Technology, Inc. – \$7,099 (9/1/13-3/31/14).

Kansas Water Office (project manager: Rob Reschke). 2013. Evaluation of Effectiveness of Wetlands in Nutrient Reduction. U.S. Environmental Protection Agency – \$334,454 (KBS portion \$74,995 real dollars; also providing \$25,137 match) (10/1/13-12/31/15). (role: PI of KBS portion)

Kastens, J.H., K.E. Dobbs, and Egbert, S.L. 2013. Updated Eastern Kansas Inundation Extent Libraries Using LiDAR. Kansas GIS Policy Board – \$35,843 (9/1/13-8/31/14). (role: PI)

Egbert, S.E., D. Parr, **J.H. Kastens**, and K.E. Dobbs. 2012. Dam Breach Modeling for Medium and High Hazard Dams in Kansas – Dam Set 4. Kansas Department of Agriculture, Division of Water Resources – \$107,284 (12/11/12-7/31/13). (role: Co-I)

Caldas, M., J.C. Brown, J. Bergtold, A. Lourenzani, T. Xia, and **J. Kastens**. 2012. Land Change in Brazil's Cerrado: Ethanol and Sugar Cane Expansion at the Farm and Industry Scale. National Science Foundation – \$701,376 (KU portion \$170,538) (7/1/12-6/30/15). (role: Co-I)

Kastens, J.H. 2012. Wetland Research in the Neosho River Basin. Blue Earth LLC – \$13,000 (9/1/12-8/31/13). (role: PI)

Egbert, S.E., D. Parr, **J.H. Kastens**, and K.E. Dobbs. 2011. Dam Breach Modeling for Medium and High Hazard Dams in Kansas – Dam Set 3. Kansas Department of Agriculture, Division of Water Resources – \$64,697 (8/1/11-6/30/12). (role: Co-I)

Kastens, J.H., K.E. Dobbs, and Egbert, S.L. 2011. Mapping Potential Inundation Extents along Central Kansas Waterways for Emergency Planning and Response. Kansas GIS Policy Board – \$70,398 (8/1/11-6/30/13). (role: PI)

Egbert, S.E., D. Parr, **J.H. Kastens**, and K.E. Dobbs. 2010. Dam Breach Modeling for Medium and High Hazard Dams in Kansas – Dam Set 2. Kansas Department of Agriculture, Division of Water Resources – \$112,942 (1/1/11-9/5/11). (role: Co-I)

Kastens, J.H., and K.E. Dobbs. 2010. GIS for Riparian Forest Assessment. Blue Earth LLC – \$17,999 (9/1/10-8/31/11). (role: PI)

Egbert, S.E., D. Parr, **Kastens, J.H.**, and K.E. Dobbs. 2010. Dam Breach Modeling for Medium and High Hazard Dams in Kansas. Kansas Department of Agriculture, Division of Water Resources – \$23,832 (8/2/10-4/15/11). (role: Co-I)

Kastens, J.H., and K.E. Dobbs. 2010. FLDPLN Model Software Development. U.S. Environmental Protection Agency – \$57,784 (8/1/10-11/30/11). (role: PI)

Kastens, J.H., and K.E. Dobbs. 2010. Reservoir/Off-Stream Storage Siting in Eastern Kansas. Kansas Water Office – \$24,999 (3/1/10-12/1/10). (role: PI)

Jakubauskas, M.J., and **J.H. Kastens**. 2010. Development of Automated Extraction of Reservoir Pre-Impoundment Surfaces from Acoustic Echosounder Data. Federal Interagency Sedimentation Project – \$28,556 (5/1/10-10/31/11). (role: Co-PI)

Egbert, S.L., **J.H. Kastens**, and K.E. Dobbs. 2008. Mapping Potential Inundation Extents along Kansas Waterways for Emergency Planning and Response. Kansas GIS Policy Board – \$73,095 (7/1/08-6/30/09). (role: Project Manager)

Martinko, E.A., and **J.H. Kastens**. 2008. Statistical Analysis of Historical Data for Assessment of Small Value Crop Modelling. Watts & Associates, Inc. – \$5,840 (4/15/08-10/15/08). (role: PI)

Egbert, S.L., **J.H. Kastens**, and K.E. Dobbs. 2008. Mapping Potential Inundation Extent along Kansas Waterways. Kansas GIS Policy Board – \$19,746 (1/11/08-11/15/08). (role: Project Manager)

Price, K.P., E.A. Martinko, S.L. Egbert, and F.J. deNoyelles, **J. Kastens**, and J. Lomas. 2002. Research in the incubation of commercial remote sensing products. NASA Earth Science Enterprise, Applications Program – \$150,000 (1/1/02-12/31/03). (role: Co-PI)

POSTERS

Andrzejewski, K.D., J.M. Shumway, K.A. Ruoff, J.F. Miller, S. Dold, **J.H. Kastens**, A.F. Halfen, W.C. Johnson. A GIS-Enhanced USGS EDMAP Study of the Lower Kansas River Valley. Geological Society of America Annual Meeting, Denver, CO, October 27-30, 2013. (poster)

Peterson, D., C. Bishop, **J. Kastens**, K. Dobbs, J.C. Brown, S. Egbert (2013). Mapping Kansas Land Cover for Agricultural Analysis, 2003-2012. Biofuels, Climate Change and Mitigation: Annual Research Symposium, Lawrence, KS, October 7-8, 2013. (poster)

Johnson, W.C., **J.H. Kastens**, E. Lee, K.E. Dobbs, G.L. Macpherson (2012). Modeling Extreme Flood Events in Afghanistan. 2012 GSA Annual Meeting & Exposition, Charlotte, NC, November 4-7, 2012. (poster)

Peterson, D., J.C. Brown, S. Egbert, **J. Kastens**, C. Bishop, K. Dobbs, V. Barve (2012). Land Use/Land Cover Time Series: Mapping Irrigated Land By Crop Type. Biofuels, Climate Change and Mitigation: Annual Research Symposium, Lawrence, KS, August 15-16, 2012. (poster)

Williams, B.S., **J.H. Kastens**, J.H. Thorp, E. D'Amico, J.E. Flotemersch (2009). Using a Novel Flood Prediction Model and GIS Automation to Measure the Valley and Channel Morphology of Large River Networks. ESRI International User Conference, San Diego, CA, July 13-17, 2009. (poster)

Kastens, J.H., K.E. Dobbs, S.L. Egbert, D.G. Huggins, B.S. Williams, J.H. Thorp (2009). Using Digital Elevation Data for River Valley Identification and Floodplain Mapping. First Biennial Symposium of the International Society for River Science. St. Pete Beach, FL, July 12-17, 2009. (poster)

Williams, B.S., **J.H. Kastens**, J.H. Thorp, E. D'Amico, J.E. Flotemersch (2009). Using a Novel Flood Prediction Model and GIS Automation to Measure the Valley and Channel Morphology of Large River Networks. ESRI International User Conference, San Diego, CA, July 13-17, 2009. (poster)

Dobbs, K.E., **J.H. Kastens**, S.E. Egbert, J.B. Thayn, and D.L. Peterson (2009). Real-time and Forecast Flood Extent Mapping in Eastern Kansas. ASPRS 2009 Annual Conference, Baltimore, MD, March 8-13, 2009. (poster)

Brown, J.C., **J.H. Kastens**, B.D. Wardlow, W. Jepson, A.C. Coutinho, A. Venturieri, J. Lomas, K. Price (2007). Using MODIS to detect cropping frequency variation in mechanized agriculture in Amazonia. XIII Brazilian Symposium of Remote Sensing, Florianópolis, Santa Catarina. (poster)

Rich, P.M., D.D. Breshears, K.P. Price, N.S. Cobb, **J.H Kastens**, R.G. Balice, and C.D. Allen (2004). Droughtinduced mortality in semiarid woodlands: assessing regional consequences of climate change. ESRI International User Conference, San Diego. (poster)

CONFERENCE PRESENTATIONS

Jude Kastens, Dave Parr, Kevin Dobbs and Steve Egbert. "Dam Breach Modeling for Significant and High Hazard Dams in Kansas". 22nd Annual Kansas Hydrology Seminar. Topeka, KS, November 22, 2013.

Melissa M. Goldade, Eunmok Lee, **Jude Kastens**, Kevin Dobbs, William C. Johnson, and Gwen L. Macpherson. "Modeling Past and Present Flood Water Inundation in the Middle East". 125th Annual Meeting of the Geological Society of America. Denver, CO, October 27-30, 2013.

Jude Kastens, Dana Peterson, Chris Bishop, Kevin Dobbs, Chris Brown and Steve Egbert. "Where Does Our Water Grow? Mapping Irrigated Cropland in Kansas, 2003-2012". EPSCoR Tri-Team Meeting, Lawrence, KS, October 7-8, 2013. [Invited Presentation]

William C. Johnson, **Jude H. Kastens**, E. Lee, Kevin E. Dobbs, and Gwen L. Macpherson. "Flood modeling in a region of political instability—a case study of Afghanistan". The 10th International Conference on Military Geosciences. Aviemore, Scotland, June 17-21, 2013.

Jeffery Neel, **Jude Kastens**, Michael Houts, Kevin Dobbs, Kabita Guimire, Frank Norman, William Beck, Debra Baker, Phil Balch, Brock Emmert, Charles Barden, Robert Atchison, Harold Klaege and John Bond. "Remote Methods to Identify Riparian-Wetland Areas for Protection and Restoration". Kansas Natural Resources Conference. Wichita, KS, January 25, 2013.

Jude Kastens, Dana Peterson, Chris Bishop, and Steve Egbert. "Mapping Irrigated Cropland in Kansas". Governor's Conference on the Future of Water in Kansas. Manhattan, KS, October 31, 2012.

Dana Peterson, **Jude Kastens**, Kevin Dobbs, and Steve Egbert. "Mapping Irrigated Cropland in Kansas". Mid-America GIS Consortium 2012 Symposium (MAGIC 2012). Kansas City, MO, April 25, 2012.

Jude Kastens and Kevin Dobbs. "New Developments in River Valley Floodplain Mapping Using DEMs: A Survey of FLDPLN Model Applications". Mid-America GIS Consortium 2012 Symposium (MAGIC 2012). Kansas City, MO, April 24, 2012.

Jude Kastens, Kevin Dobbs, and Steve Egbert. "Wide-Area Flood Extent & Floodplain Mapping for Disaster Preparedness and Response: A Survey of FLDPLN Model Applications". KU Environmental Security Conference. Lawrence, KS, April 23, 2012.

J. Christopher Brown, **Jude H. Kastens**, Alexandre Coutinho, Daniel Victoria, and Chris Bishop. "Feeding the world AND conserving tropical forests: a test of the Borlaug Hypothesis in Mato Grosso, Brazil". Feeding 9 Billion: The Future of Large-Scale Agriculture in Brazil. Providence, RI, March 8, 2012.

Jude Kastens, Dave Parr, Kevin Dobbs, and Steve Egbert. "Dam Breach Modeling for Significant and High Hazard Dams". Kansas Dam Safety – 2012 Conference. Topeka, KS, February 15, 2012. [Invited Presentation]

Jude Kastens and Mark Jakubauskas. "Development of Automated Extraction of Reservoir Pre-Impoundment Surfaces from Acoustic Echosounder Data". 20th Annual Kansas Hydrology Seminar. Topeka, KS, November 18, 2011.

Jude Kastens and Mark Jakubauskas. "Development of Automated Extraction of Reservoir Pre-Impoundment Surfaces from Acoustic Echosounder Data". Water and the Future of Kansas Conference. Topeka, KS, September 30, 2011.

Jude Kastens, Kevin Dobbs, Don Huggins, and Debbie Baker. "Multipurpose Floodplain Mapping". 3rd Annual Conference of the Nebraska Floodplain and Stormwater Managers Association. Mahoney State Park, NE, June 23, 2011. [Invited Presentation]

Jude Kastens. "Do You See What I See: Unraveling Complex Earth Systems with Remote Sensing". Mathematics Awareness Month Awards Ceremony. Lawrence, KS, April 27, 2011. [Invited Presentation]

Jude Kastens. "Remote Sensing – Gee Whiz!". Kansas Precision Ag Conference. Salina, KS, January 20, 2011. [Invited Presentation]

Jude Kastens. "KARS Surface Mapping Tools – A Remote Sensing Overview". 2010 Kansas Association of Conservation Districts Annual Meeting. Wichita, KS, November 22, 2010. [Invited Presentation]

Jude Kastens, Kevin Dobbs, and Melinda Luna. "Reconstructing the Texas Flood of 1938". 2010 Texas GIS Forum. Austin, TX, October 28, 2010. [Invited Presentation]

Ellen Damico, Bradley Williams, **Jude Kastens**, Joseph Flotemersch, and James Thorp. "Rapid River Classification Using GIS-Delineated Functional Process Zones". 2010 ESRI International User Conference, San Diego, CA, July 12-16, 2010. [E. Damico presented]

Jude Kastens, Kevin Dobbs, and Steve Egbert. "Mapping Potential Flood Extents in Eastern Kansas". Mid-America GIS Consortium 2010 Symposium (MAGIC 2010). Kansas City, MO, April 20, 2010.

Kevin Dobbs, **Jude Kastens**, and Steve Egbert. "Evaluation of NED Elevation Data and the FLDPLN Model for Inundation Extent Estimation". Mid-America GIS Consortium 2010 Symposium (MAGIC 2010). Kansas City, MO, April 20, 2010.

Jude H. Kastens, Debra S. Baker, Donald G. Huggins, and Kevin E. Dobbs. "Applications of a GIS Floodplain Mapping Model – valley identification, connectivity indexing, and emergency management". Missouri Natural Resources Conference. Nebraska City, NE, March 19, 2010. [D. Baker presented]

Jude Kastens, Kevin Dobbs, Don Huggins, Steve Egbert, Brad Williams, and Jim Thorp. "Using Digital Elevation Data for Ecological Applications Involving River Valley Identification and Floodplain Mapping". Kansas Natural Resources Conference. Wichita, KS, February 5, 2010. [Invited Presentation]

Jude Kastens, Kevin Dobbs, Steve Egbert, and Don Huggins. "Flood Mapping Using Digital Elevation Data". Comprehensive Flood Assessment Workshop, Joint Basin Advisory Committee Meeting. New Strawn, KS, May 7, 2009. [Invited Presentation]

Jude Kastens. "Do You See What I See: The Wide World of Remote Sensing Data". Nebraska Agricultural Technologies Association Conference. Grand Island, NE, January 29, 2009. [Invited Presentation]

Jude Kastens, Kevin Dobbs, and Steve Egbert. "Real-Time and Forecast Flood Extent Mapping in Eastern Kansas. Kansas Hydrology Seminar. Topeka, KS, November 21, 2008.

Jude Kastens. "Using LiDAR for Applications in Floodplain Mapping". Mid-America GIS Consortium 2008 Symposium (MAGIC 2008). Kansas City, MO, April 23, 2008.

Paul Rich (LANL), David Breshears (UA), and Kevin Price (KU), Neil Cobb (NAU), **Jude Kastens** (KU), Craig Allen (USGS), and Randy Balice (LANL). "Drought-induced mortality in semiarid woodlands". New Mexico Geographic Information Council (NMGIC) Fall Meeting, 8 October 2004 "Conservation and Environmental GIS"

MISCELLANEOUS

Jude Kastens, Kevin Dobbs, and Steve Egbert. "New Developments in River Valley Floodplain Mapping Using DEMs: A Survey of FLDPLN Model Applications". Association of State Wetland Mangers and National Floodplain Function Alliance (ASWM/NFFA) Webinar Series, January 13, 2014. (<u>http://www.aswm.org/-nffa/1790-webinars#11314</u>)

Jude Kastens and Kevin Dobbs. "New Developments in River Valley Mapping Using DEMs: A Survey of FLDPLN Model Applications". EROS Data Center. Sioux Falls, SD, April 29, 2011.

Jude Kastens. "A View From Kansas: The Many Uses of Remote Sensing Data". University of Campinas. Campinas, Brazil, October 19, 2009. [Invited Presentation]

Reviewed articles for Remote Sensing of Environment (5), Photogrammetric Engineering & Remote Sensing (3), Agronomy Journal (2), Australian Journal of Agricultural Research (1), IEEE Geoscience and Remote Sensing Letters (1), IEEE Transactions on Geoscience and Remote Sensing (2), Journal of Agricultural Science and Technology (1), Journal of Agricultural and Resource Economics (1), Proceedings of the IEEE Conference on Decision and Control (1), Sensors (1), Remote Sensing (2), Geocarto International (1), International Journal of Remote Sensing (2), Environmental Monitoring and Assessment (1)