

G. ROBERT BRAKENRIDGE

Founder and Associate Director, Dartmouth Flood Observatory

<http://floodobservatory.colorado.edu/>

Senior Research Scientist

[CSDMS](#), INSTAAR, University of Colorado

4001 Discovery Dr. Office N142, Boulder CO 80303

Cell: 603-252-0659

Email: [Robert.Brakenridge @ Colorado.edu](mailto:Robert.Brakenridge@Colorado.edu)



EDUCATION

Ph.D. 1982, University of Arizona, Tucson, Geosciences

M. S. 1979, University of Arizona, Tucson, Geosciences

B.S. 1975, Beloit College, Environmental Geology

Postdoctoral Research, 1982 (German Academic Exchange Scholarship), West Germany

EXPERIENCE

2010-Present Senior Research Scientist, University of Colorado

1987-2011 Assistant, Associate, Full Research Professor, Dartmouth College, Dept. of Geography; Adjunct Professor, Dept. of Earth Sciences

1991-1992 JPL/California Institute of Technology Visiting Senior Scientist and Geology Program Manager, Solid Earth Sciences, NASA Headquarters, Washington, D.C.

1983-1987 Assistant Professor, Dept. Geology, Wright State University

ACTIVITIES

2018 NASA/USAID/PEER project workshop: "Applied tools to monitor water discharge and flooding for South American Rivers", EAFIT University, Medellín, Colombia

2012- International Working Group on Satellite Emergency Mapping (IWG-SEM)

2014-2018 Steering Committee, Global Flood Partnership: public, private and international groups performing global flood monitoring, modeling and forecasting

2017 Expert Meeting on the Global Risk Assessment in support of the Sendai Framework, UN-ISDR, Geneva

2017 Invited Presenter, Transboundary Water - Improving Methodologies and Developing Integrated Tools for Global Water Security meeting, Silver Spring.

2014 - 2017 Advisory Board, "[Earth2Observe](#)", Global Earth Observation for Integrated Water Resource Assessment. The European Commission-supported project includes 23 EU and 4 non-EU partners

2016 Co-Chair, with A. Chong, World Food Program/Dartmouth Flood Observatory/NASA GSFC technical work session, Boulder, CO

2016 SERVIR (NASA and U.S. AID) Technical Assessment Group for surface water and flood extent monitoring, mapping, and modeling

2016 Expert consultation, Information system on damage and losses from disasters in crops, livestock, fisheries, aquaculture and forestry, UN FAO, Rome

- 2015 Co-convener with T. Hopson and T. De Groeve, 5th Meeting of the Global Flood Partnership, NCAR/University of Colorado, Boulder, CO
- 2014 Co-convener with F. Pappenberger and T. De Groeve, 4th Meeting of the Global Flood Partnership, European Center for Medium-Range Weather Forecasting, Reading (also 3 previous annual meetings, College Park; Delft; Ispra).
- 2014 Panel Discussant, The Flood Model Showcase, The World Bank, Washington DC.
- 2013-2016 Committee on Earth Observation Satellites, Disaster Risk Management, Flood Pilot
- 2011-2017 Users Working Group, NASA LANCE (Land Atmosphere Near-real time Capability for EOS)
- 2003-2014 Federal Science Advisory Panel, then Science Working Group, NASA Land Processes Distributed Active Archive (LPDAAC)
- 2009 Co-Chair, with T. De Groeve, session on Disaster Early Warning, 33rd International Symposium on Remote Sensing of the Environment, Stresa
- 2003-2007 Director, NATO Science for Peace Project, with Romanian and Hungarian government water ministry collaborators, "Monitoring of Extreme Flood Events in Romania and Hungary"
- 2007 Consultant, The World Bank, Agriculture and Rural Development Department, "Innovative Approaches for Flood Risk Management in Agriculture" report

SAMPLE GRADUATE STUDENT ADVISING

Ph.D. Committee, "Anisotropic Delta Subsidence Measured with Interferometric Synthetic Aperture Radar". Stephanie Higgins, Dept. of Geological Sciences, Univ. of Colorado, 2014.

M.S. Committee, "Factors affecting inundation and flow hydrology in a high latitude glaciated landscape", Heather Carlos, Dept. of Earth Sciences, Dartmouth College, 2008.

Ph.D. Committee, "Evaluating the potential for measuring river discharge from space", David Bjerklie, University of New Hampshire, Dept. of Earth Sciences, 2004.

External Examiner, M. Soc.Sci. "Application of GIS and remote sensing in flood management: A case study of West Bengal, India", Sanyal Joy, National University of Singapore, 2004.

MEDIA AND EDUCATIONAL OUTREACH

COLORADO MATTERS (Colorado Public Radio). "The 2013 Floods made the research personal for this Lyons weather scientist". By Nell London and R Warner. Sept 12, 2018
<https://www.cpr.org/news/story/the-2013-flooding-made-the-research-personal-for-this-lyons-weather-scientist>

"In Colorado, a global flood observatory keeps a close watch on Harvey's torrents", by Jason Plautz, Aug. 30, 2017, *Science*, doi:10.1126/science.aap8304.

"Visualizing Hurricane Harvey's impact on Houston's neighborhoods", Sarah Storchak, Bhargavi Ganesh, September 13, 2017, <https://www.urban.org/urban-wire/visualizing-hurricane-harveys-impact-houstons-neighborhoods>, The Urban Institute, Washington, DC.

NASA Earth Observatory, 2016: "Ganges Flooding",
http://earthobservatory.nasa.gov/IOTD/view.php?id=88729&eocn=home&eoci=iota_previous

USA Today, 2016, "Overwhelmed: Floods ravage fragile system. Deluge sent river flowing backwards and water over roadways and homes",

<http://www.usatoday.com/story/news/2016/03/26/overwhelmed-floods-ravage-fragile-system/82219820/>.

Webinar (with A. Kettner) on “Flood mapping and river flow measurements in Latin America and the Caribbean”, October 3, 2014. Co-hosted by GeoSUR, *MundoGEO* and the Dartmouth Flood Observatory (DFO). This presented capability to map floods in near-real-time and estimate daily river flow using remote sensing. Two hundred specialists from 40 countries participated.

Video Interview at the European Centre for Medium-Range Weather Forecasts (ECMWF) at the 2014 Global Flood Partnership meeting on: [“global flood observations”](#).

Collaborator in *Nurture Nature Center* (Easton, PA) “Rising Waters Project” [Science on a Sphere](#), led by Kate Brandes, supported by NOAA. Project received Media/Outreach National Award from the Association of State Flood Plain Managers, 2013.

New York Times, map published using data provided by the Flood Observatory, June 7, 2013, “Flooding along Europe’s Rivers”.

“Natural Hazards Experts Learn First-Hand from the Colorado Storm and Flood”, 2013, *Eos*, v. 94, No. 46, <http://onlinelibrary.wiley.com/doi/10.1002/2013EO460002/epdf>

New York Times, map published, January 5, 2011, “Flooded Areas, December 28-January 4, Australia”

Chicago Tribune, map published, January 5, 2011, “Underwater Down Under”

New American Museum of Natural History, *NCEP Teaching Modules and online journal*, Images and maps of Mekong Delta flooding, 2010, Network of Conservation Educators and Practitioners.

New York Times, August 26, 2010, “Assessing the damage as flooding in Pakistan moves south”

Earth and Sky, “A Clear Voice for Science”, 08-18-2008, Is flooding increasing around the world? Earth and Sky talks with Bob Brakenridge, founder of the Dartmouth Flood Observatory in this “Clear Voices for Science” podcast.

National Geographic News, “Satellites Can Warn of Floods, Landslides Worldwide, Scientists Say, May 25, 2006.

New York Times, September 8, 2005, “Regaining ground”, maps of flooding from Katrina.

Science Daily, September 13, 2005, “Dartmouth Flood Observatory Tracks The Aftermath Of Katrina” Researchers with the Dartmouth Flood Observatory have been working with state and federal officials, along with representatives from NGOs, to help map and analyze the flooding”.

Scientific American, October 13, 2000, “Satellites help find flood victims”. New surface water images from the MODIS instrument are proving themselves a huge help to researchers monitoring the current flooding in Southeast Asia.

INVITED TALKS

“Hydrologic Extremes and Society”, CUAHSI Biennial Colloquium, 2018.

“GeoSUR/Flood Observatory Collaboration for Water Resources and Flood Hazard Needs”, with E. Van Praag, 9th Annual Latin American Faculty Summit, Challenges of Computational Hydrology and the Potential Effects on Policy, Microsoft Research, Viña del Mar, Chile, May 7-9, 2014.

“Satellite Measurements of River Discharge and Runoff”, 9th Annual Hydrologic Sciences Research Symposium, Water, Our Global Solvent, University of Colorado, April 3-4, 2014,
 “Global Hydrologist in a Local Flood”, National Hydrologic Warning Council, Colorado Advanced Flood Warning System Workshop, Broomfield, CO, February 26, 2014.
 “Flood Observatory Data and Services”, Earth Engine and Disaster Risk Meeting, Google Headquarters, Mountain View, CA, December, 2013
 “Global Flood Mapping and Measurement”. Deltares Noon Seminars, Delft, Nov. 10, 2011.
 “Core-collapse Supernovae and the Younger Dryas/Terminal Rancholabrean Extinctions”, INSTAAR Noon Seminars, University of Colorado, Boulder, CO, Sept. 12, 2011.
 “Arctic River Discharge and Ice-cover Using AMSR-E”, Cryospheric and Polar Processes Seminar, National Snow and Ice Data Center, Boulder, Colorado, February 4, 2011.
 “Space-based Management of Surface Water”, *The World Bank*, World Water Week, Washington DC, Flood Management Session, February 17, 2009.
 “Satellite-based Flood Detection, Mapping, and River Monitoring in Near Real Time”, NASA Earth Science delegate, India-United States Bilateral Conference on Space Science, Applications, and Commerce”, Bangalore, India, June 21-25, 2004.

AWARDS

Earth Science winner of the AAP PROSE award 2019, “Global Flood Hazard”, published in 2018.
 Certificate of Appreciation, for reviews provided to Journal of Applied Remote Sensing, 2012.
 Certificate of Appreciation, for “Valuable Contribution and Outstanding Support to the Instrument Incubator Program and the NASA Earth Science Technology Office”, NASA, 2010.
 Group Achievement Award, “Outstanding Achievement in Development of an Operational Earth Observing Sensorweb, Integrating Space and Ground Sensors”, NASA Administrator, 2007.

SERVICE

Promotion reviews (academic tenure, or advancement to senior scientist), 2008-present.
Peer Reviewer for GSA Bulletin, Geology, J. of Geophys. Res., J. of Geophys.-Planets, Geophys. Res. Letters, Water Resources Res., Quaternary Res., Nature, Geomorphology, Geoarchaeology, J. Hydrometeorology, Remote sensing of the Environment, Physical Geography, Hydrological Sciences, Int. J. Remote Sensing; others, 1984-present.
Peer Reviewer, NSF, NASA, other national and international grant proposals and review panels, 1984-present.
Fellow, Geological Society of America; *Member*, American Geophysical Union
Watershed Advisory Board member, Lyons, Colorado, 2017-2018
Elected Official (School Boards), Dresden and Hanover School Districts, New Hampshire and Vermont, 1997-2001.

PUBLICATIONS

(*abstract and lecture or poster; others are peer-reviewed articles or technical reports)

2018

Ziyue, Z., Kettner, A. J., Chao, Z., Brakenridge, G. R., Hong, Y., 2018, Towards high resolution flood monitoring: an integrated methodology using passive microwave brightness

temperatures and Sentinel synthetic aperture radar imagery. *Remote Sensing of Environment*, in review.

Salamon P., and others, 2018, “The Global Flood Partnership Annual Meeting 2018 - bridging the gap between science and users”. European Commission, Ispra, 2018, ISBN 978-92-79-93665-4, doi:10.2760/05644, PUBSY No. JRC113100

Shen, X., Anagnostou, E. N., Allen, G. H., Brakenridge, G. R., and Kettner, A. J., 2018, Near-Real-Time flood inundation mapping using Synthetic Aperture Radar (SAR). *Remote Sensing of the Environment*, in press.

Brakenridge G. R., 2018, Causation of rapid-onset radiocarbon anomalies. *Proceedings of the National Academy of Science*, in review.

Brakenridge, G. R., 2018, Flood risk mapping from orbital remote sensing, In “Global Flood Hazard: applications in modeling, mapping and forecasting”, AGU Monograph Series, G J-P Schumann, ed., John Wiley & Sons, 350 p.

Schumann, G., J-P., Brakenridge, G. R., Kettner, A. J., Rashid, K., Niebuhr, E., 2018, Assisting flood disaster response with Earth Observation data and products: a critical assessment. *Remote Sensing*, v. 10, 1230.

Alfieri and others, 2018, A global network for operational flood risk reduction. *Environmental Science & Policy*, Vol. 84, p.149–158.

De Groeve, T. and others, 2018, A global partnership for flood risk reduction. *American Geophysical Union Fall Meeting*, Washington, DC, H41M-2270*

Cohen, S. and others, 2018, Flood Inundation Mapping and Analysis Using Satellite Remote Sensing in Support of Emergency Response and Forecasting. *American Geophysical Union Fall Meeting*, Washington, DC, H33S-2309*.

Kettner, A. and others, 2018, Integrating Global EO and Modeling Systems for Local Flood Prediction and Impact Assessment. *American Geophysical Union Fall Meeting*, Washington, DC, H32B-01*.

Tellman, B. and others, 2018, A Global Flood Database from 2001-2017: empirical satellite data reveals what global flood models cannot predict. *American Geophysical Union Fall Meeting*, Washington, DC, H51B-01*.

Cohen, S. and others, 2018, Activations of the Global Flood Partnership (GFP) during 2018 Response to Major Global Flooding Events. *American Geophysical Union Fall Meeting*, Washington, DC, NH13E-08*.

2017

Kundzewicz, Z. W., Pińskwar, I., and Brakenridge, G. R., 2017, Changes in river flood hazard in Europe - a review, *Hydrological Research*, V. 49, p. 294-302.

Tellman, B., Sullivan, J., Doyle, C., Kettner, A., Kuhn, C., Brakenridge, R., Slayback, D., Eriksen, T., A Global Geospatial Database of 5000+ Historic Flood Event Extents. *American Geophysical Union Annual Meeting*, New Orleans.*

Hopson, T., Riddle, E., Broman, D., Brakenridge, R., Birkett, C., Kettner, A., Sampson, K., Boehner, J., Priya, S., Collins, D., Rostkier-Edelstein, D., Islam, AKM, Young, W., Singh, D., Transforming Atmospheric and Remotely-Sensed Information to Hydrologic Predictability in South Asia. *American Geophysical Union Annual Meeting*, New Orleans*.

Cohen, S., Adler, R., Alfieri, L., Brakenridge, G. R., Coughlan, E., Flamig, Z., Galantowicz, J., Hong, Y., Kettner, A., Matgen, P., Nghiem, S. V., Prados, A., Rudari, R., Salamon, P., Trigg, M.,

Rapid-response flood mapping during Hurricanes Harvey by the Global Flood Partnership (GFP), *American Geophysical Union Annual Meeting*, New Orleans.*

Cohen, S., Brakenridge, G. R., Kettner, A., Bates, B., Nelson, J., Huang, Y-F, Munasignhe, D. and Zhang, J., 2017, Methodology for Estimating Floodwater Depths from Remote Sensing Flood Inundation Maps and Topography. *Jour. of the Amer. Water Resources Association*, 1-12. <https://doi.org/10.1111/1752-1688.12609>.

Andreadis, K. M., Schumann, G. J-P, Stampoulis, D., Bates, P.D., Brakenridge G. R., and Kettner, A.J., 2017, Can atmospheric reanalysis datasets be used to reproduce flooding over large scales? *Geophysical Research Letters*.44, 10.1002/2017GLO75502.

Kettner, A, Overeem, I., Cohen, S., Fekete, B., Brakenridge, G. R., Syvitski, J., 2017, Increases in flood frequency by the 21st century: A global modeling assessment. In “Global Flood Hazard: applications in modeling, mapping and forecasting”, AGU Monograph Series, G J-P Schumann, ed., John Wiley & Sons, 350 p.

2016

Kettner, A. J., Cohen, S., Overeem, I., Fekete, B. M., Brakenridge, G. R., and Syvitski, J. P., 2016, A numerical analysis on how climate change affects riverine flooding, *American Geophysical Union Annual Meeting*, San Francisco*

Cohen, S., Brakenridge, G. R., and Kettner, A. J., 2016, Near real time river discharge observation and flood inundation mapping using satellite remote sensing products. *Geological Society of America Abstracts with Programs*. Vol. 48, No. 7, doi: 10.1130/abs/2016AM-285128*.

Nghiem, S.V., Zuffeda, C., Shah, R., Chew, C., Lowe, S. T., Mannucci, A. J., and Brakenridge, G. R., 2016, Wetland dynamics monitoring with global navigation satellite system reflectometry. *AGU Earth and Space Science*, DOI: 10.1002/2016EA000194.

Brakenridge, G. R., and others, 2016, Design with Nature: Causation and avoidance of catastrophic floods in Myanmar. *Earth-Science Reviews*, V. 165, p. 81–109.

Policelli, and others, 2016, The NASA global flood mapping system, In “Remote Sensing of Hydrologic Extremes”, V. Lakshmi and G. Huffman, eds, Springer International Publishing Switzerland 2017, ISBN 978-3-319-43743-9

Salamon P., Hirpa F., Andreadakis I., de Groeve, T., Brakenridge R., Coughlan de Perez, E., Rudari R., Wu H., Policelli F., Amarnath G., Trigg M., and Green D., 2016, The Global Flood Partnership Conference 2016; Linking global flood information with local needs. Technical report by the Joint Research Centre (JRC) of the European Commission. JRC Science Hub, <https://ec.europa.eu/jrc>, JRC103406.

Escobar, R. C., Restrepo, J.D., Brakenridge, G. R., and Kettner, A.J., 2016, Satellite-based estimation of water discharge and runoff in the Magdalena River, northern Andes of Colombia. In “Remote Sensing of Hydrologic Extremes”, V. Lakshmi and G. Huffman, eds, Springer International Publishing Switzerland 2017, ISBN 978-3-319-43743-9

Van Dijk, A. I. J. M., Brakenridge, G. R., Kettner, A. J., Beck, J. E., and De Groeve, T. 2016, River gauging at global scale using optical and passive microwave remote sensing. *Water Resources Research*, 52, doi:10.1002/2015WR018545.

Schumann, G. J-P. and others, 2016, Unlocking the full potential of Earth observation during the 2015 Texas flood disaster. *Water Resources Research*, 52, 3288–3293, doi:10.1002/2015WR018428.

Andreadis, K., Schumann, G., Stampoulis, D., Smith, A., Neal, J., Bates, P., Brakenridge, G. R., and Kettner, A., 2016, Building a flood climatology and rethinking flood risk at continental scales, European Geophysical Union General Assembly, Vienna*

Revilla-Romero, B. et al, 2016, Decision making based on global flood forecasts and satellite-derived inundation maps in data-sparse regions, Eur. Geophys. Union General Assembly*

Thielen-del Pozo, J., Salamon, P., Hirpa, F. A., De Groeve, T., Brakenridge, G. R., 2016, Building bridges for better global flood risk management: the Global Flood Partnership. UNISDR Science and Technology Conference on the Implementation of the Sendai Framework for Disaster Risk Reduction, Geneva, Switzerland, January 27-29*.

Syvitski, J. P. M., Kettner, A. J., Overeem, I., Brakenridge, G. R., and Cohen, S. 2016, Latitudinal controls on siliciclastic sediment production and transport. *SEPM Search and Discovery Special Issue, Latitudinal Controls on Stratigraphic Models and Sedimentary Concepts*, 22p.

2015

De Groeve, T., Brakenridge, G. R., and Paris, S., 2015, "Global Flood Detection System Data Product Specifications". *JRC Technical Report*.

http://www.gdacs.org/floodddetection/Download/Technical_Note_GFDS_Data_Products_v1.pdf.

Revilla-Romero, B., Feyera, A. H., Thielen-del Pozo, J., Salamon, P., Brakenridge, G. R., Pappenberger, F., De Groeve, T., 2015, On the use of global flood forecasts and satellite-derived inundation maps for flood monitoring in data-sparse regions. *Remote Sensing* (Special Issue "Remote Sensing in Flood Monitoring and Management"), 7, 15702-15728; doi:10.3390/rs71115702.

Masetti, M., Nghiem, S. V., Sorichetta, A., Stevenazzi, S., Fabbri, P., Pola, M., Filippini, M., Brakenridge, G. R., 2015, Urbanization Affects Air and Water in Italy's Po Plain, *EOS*, v. 96, No. 21, p. 13-16.

Brakenridge, G. R., Nghiem, S. V., Overeem, I., and De Groeve, T., 2015, Synergistic use of satellite sensors to monitor freshwater influx into the Arctic Ocean. Submitted abstract, *Living Planet Symposium*, European Space Agency, Prague, May 9-13, 2016.*

Syvitski, J. P. M. and Brakenridge, G. R., 2015, The Amazon --- An Incredible Tropical River System. *9th Symposium on River, Coastal and Estuarine Morphodynamics*, Iquitos City*

Kettner, A., Syvitski, J. P. M., Overeem, I. and Brakenridge, G. R., 2015, Morphological changes due to flooding: the Indus River. *9th Symposium on River, Coastal and Estuarine Morphodynamics*, Iquitos City*.

Brakenridge, G. R., Kettner, A. J., Cohen, S., Syvitski, J. P. M., Overeem, I., and De Groeve, T., 2015, Flood risk and climate change: the contributions of remote sensing. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Kettner, A. J., Brakenridge, G. R., van Praag, E., Borrero, S., Slayback, D., Young, C., Cohen, S., Prades, L., de Groeve, T., 2015, On the value of satellite-based river discharge and river flood data. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Overeem, I., Brakenridge, G. R., and Hudson, B., 2015, Satellite-based observation of arctic river dynamics. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Hirpa, F., Revilla-Romero, B., Thielen, J., Salomon, P., Brakenridge, G. R., Pappenberger, F., de Groeve, T., 2015, On the reliable use of satellite-derived surface water products for global flood monitoring. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Slayback, D., Brakenridge, G. R., and Policelli, F., 2015, Characterizing 13 Years of surface water variability from MODIS-based near real-time flood mapping products in the Indus River, Tonle Sap Lake, and Lake Chad. *Fall Meeting, Amer. Geophysical Union*, San Francisco, CA.*

Frye, S., and others, 2015, User-Driven Workflow for Modeling, Monitoring, Product Development, and Flood Map Delivery Using Satellites for Daily Coverage Over Texas. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

2014

Syvitski, J. P. M., Cohen, S., Kettner, A. J., Brakenridge, G. R., 2014, How important and different Are tropical rivers? *Geomorphology*, doi: 10.1016/j.geomorph.2014.02.029.

Nigro, J., Slayback D., Policelli, F., and Brakenridge, G. R., 2014, “NASA/ DFO MODIS Near Real-Time (NRT) Global Flood Mapping Product-Evaluation of Flood and Permanent Water Detection”. *Technical report, NASA GSFC, Greenbelt, MD*.

De Groeve, T., Thielen, J., Brakenridge, G. R., Adler, R., Alfieri, L., Kull, D., Lindsay, F., Imperiali, O., Pappenberger, F., Rudari, R., Salamon, P., Villars, N., and Wyjad, K., 2014, Joining forces in a Global Flood Partnership. *Bull. Amer. Meteor. Soc.* doi:10.1175/BAMS-D-14-00147.1.

Revilla-Romero, B., Thielen, J., Salamon, P., De Groeve, T., and Brakenridge, G. R., 2014, Evaluation of the satellite-based Global Flood Detection System for measuring river discharge: influence of local factors. *Hydrology and Earth System Sciences*, v. 18, p. 4467–4484, doi:10.5194/hess-18-4467-2014.

Zhang, Y., Hong, Y., Gourley, J.J., Wang, X., Brakenridge, G.R., De Groeve, T., and Vegara, H., 2014, Impact of assimilating spaceborne microwave signals for improving hydrological prediction in ungauged basins. In “Remote Sensing of the Terrestrial Water Cycle”, V. Lakshmi et al, Eds, DOI: 10.1002/9781118872086.ch27, John Wiley, NY.

Kundzewicz, Z. W., Kanae, S., Seneviratne, S. I., Handmer, J., Nicholls, N., Peduzzi, P., Mechler, R., Bouwer, L. M., Arnell, N., Mach, K., Zhang, X., Honda, Y., Luo, Y., Benito, G., Takahashi, K., Sherstyukov, B., Brakenridge, G. R., Kron, W., 2014, Flood risk and climate change – global and regional perspectives. *Hydrological Sciences Journal*, V. 59, Issue 1, p. 1-28.

Syvitski, J. P. M., Overeem, I., Brakenridge, G. R., Hudson, B, and Cohen, S., 2014, Arctic river discharge and sediment loads -an overview. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Overeem, I, Higgins, S, Syvitski, J. P. M., Kettner, A. J, Brakenridge, G. R., 2014, The impacts of armoring our deltas: mapping and modeling large-scale delta plain aggradation. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Di, L., Yu, G., Kang, L., Shao, Y., Shrestha, R., Zhang, B., Deng, M., Yang, Z., Hipple, J., and Brakenridge, G.R., 2014, A remote-sensing based flood crop loss assessment service system for supporting USDS crop statistics and insurance decision-making. *IGARSS 2014/Canadian Symposium on Remote Sensing*, Quebec City*.

Thielen, J., De Groeve, T., Pappenberger, F., and Brakenridge, G. R., 2014, HEPEX, Hydrologic Ensemble Prediction Experiment. *Tenth Anniversary Workshop*, June 24-26, Maryland, USA.*

2013

Syvitski, J. P. M., Brakenridge, G. R., 2013, Causation and avoidance of catastrophic flooding along the Indus River, Pakistan. *GSA Today* 23(1): p. 4-10.

- Syvitski, J.P.M., Kettner, A.J., Overeem, I., Giosan, L., Brakenridge, G. R., Hannon, M., Bilham, R., 2013, Anthropocene metamorphosis of the Indus Delta and lower floodplain, *Anthropocene*, V. 3, p. 24–35.
- Hirpa, F.A., Hopson, T., De Groeve, T., Brakenridge, G. R., Gebremichael, M., and Restrepo, P. J., 2013, Upstream satellite remote sensing for river discharge prediction: application to major rivers in South Asia. *Remote Sensing of Environment*, V.131, 140–151.
- Kundzewicz, Z.W., Iwona Pińskwar, I., and Brakenridge, G. R., 2013, Large floods in Europe, 1985–2009, *Hydrological Sciences Journal*, 58:1, 1-7.
- Westerhoff, R. S., Kleuskens, M. P. H., Winsemius, H. C., Huizinga, H. J., Brakenridge, G. R., and Bishop, C., 2013, Automated global water mapping based on wide-swath orbital synthetic-aperture radar. *Hydrol. Earth Syst. Sci.*, 17, 651-663, doi: 10.5194/hess-17-651-2013.
- Brakenridge, G. R. and Birkett, C., 2013, Lake storage measurements for water resources management: combining remotely sensed water levels and surface areas. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Nghiem, S. V., Barber, D. G. Brakenridge, G. R., Leshkevich, G. A., Markus, T., Neumann, G., Njoku, E. G., Perovich, D. K., Steffen, K., Sturm, M., van Woert, M. L., 2013, Surface water applications of satellite scatterometry. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Kettner, A., Syvitski, J. P. M., Overeem, I., Brakenridge, G. R., 2013, Flood deposition patterns and channel migration due to a 10-year flood event: the case of the Indus River flood 2010. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Syvitski, J. P. M., Cohen, S., Kettner, A. J., Brakenridge, G. R., 2013, New possibilities in global hydrology and sediment transport. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Webster, P. J., Hopson, T. M., Hirpa, F. A., Brakenridge, G. R., De-Groove, T., Shrestha, K., Gebremichael, M., Restrepo, P. J., 2013, Remote sensing and river discharge forecasting for major rivers in South Asia. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Verdin, K. L., Verdin, J. P., Gadain, H., Mathis, M., Woodbury, M., Rusack, E., Brakenridge, G. R., 2013, A GIS flood tool for rapid inundation mapping. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Brakenridge, G. R. and Syvitski, J. P. M., 2013, Quaternary geoscience and natural hazards. *Geological Society of America National Meeting*, Denver, November 1-4, 2013*.
- Birkett, C. and Brakenridge, G. R., 2013, Lake volume monitoring for water resources: combining altimetry and surface area measurements. *ASPRS Annual Conference*, March 24-28, 2013, Baltimore, MD USA*
- 2012**
- Brakenridge, G. R., Cohen, S., Kettner, A.J., De Groeve, T., Nghiem, S.V., Syvitski, J.P.M., Fekete, B. M., 2012, Calibration of orbital microwave measurements of river discharge using a global hydrology model. *Journal of Hydrology*, <http://dx.doi.org/10.1016/j.jhydrol.2012.09.035>.
- Syvitski, J. P. M., Overeem, I., Brakenridge, G. R., Hannon, M. D., 2012, Floods, floodplains, delta plains: A satellite imaging approach. *Sedimentary Geology* v.267-268, p. 1-14, doi.org/10.1016/j.sedgeo.2012.05.014.

- Fekete, B. M., Lammers, R. B., and Brakenridge, G. R., 2012, River discharge, in “State of the Climate in 2011”, *Special Supplement to the Bulletin of the American Meteorological Society*, 93, 7, Chapter 2, p. S28-S29.
- Khan, S. I., Y. Hong, H. J. Vergara, J. J. Gourley, G. R. Brakenridge, T. De Groeve, Z. L. Flamig, F. Policelli, and B. Yong, 2012, Microwave satellite data for hydrologic modeling in ungauged basins, *Geoscience and Remote Sensing Letters*, IEEE, v. 9, no. 4, p. 663-667, PP (99), 1-5. doi: 10.1109/LGRS.2011.2177807.
- Brakenridge; G. R., Syvitski, J.P.M., Overeem, I., Stewart-Moore, J.A., Kettner, A.J., Westerhoff, R., 2012, Global mapping of storm surges, 2002-present and the assessment of coastal vulnerability. *Natural Hazards*, 66: 1295-1312. DOI 10.1007/s11069-012-0317-z.
- Syvitski, J. P. M., Brakenridge, G. R., Hannon, M., 2012, Floods, floodplains, delta plains - a satellite imaging approach. *Sedimentary Geology*, v.267-268, p. 1-14, doi.org/10.1016/j.sedgeo.2012.05.014.
- Pińskwar, I., Kundzewicz, Z. W., Peduzzi, P., Brakenridge, G.R., Stahl, K., Hannaford, J., 2012, Changing floods in Europe. In: Kundzewicz, Z. W. (ed.), “Changes in Flood Risk in Europe”, Special Publication No. 10, IAHS Press, Wallingford, Oxfordshire, UK, p. 83-95.
- Chorynski, A., Pińskwar, I., Kron, W., Brakenridge, R., Kundzewicz, Z. W., 2012, Catalogue of large floods in Europe in the 20th century. In: Kundzewicz, Z. W. (ed.), “Changes in Flood Risk in Europe”, Special Publication No. 10, IAHS Press, Wallingford, Oxfordshire, UK, p. 27-54.
- Cohen, S., Brakenridge, G.R., Kettner, A.J., Syvitski, J.P.M., Fekete, B.M., and De Groeve, T., 2012, Calibration of orbital microwave measurements of river discharge using a global hydrology model. *AGU Chapman Conference, “Remote Sensing of the Terrestrial Water Cycle”*, Kona, Hawaii, USA, 19 –22 February 2012.*
- Winsemius, H.C., Brakenridge, G. R., Westerhoff, R. S., Huizinga, J. H., Villars, N., and Bishop, C., 2012, Flood mapping by combining the strengths of optical and Sentinel active radar remote sensing, *EGU General Assembly, Geophysical Research Abstracts*, V. 14, EGU2012-13224, Vienna, Austria. p.13224*.
- Kettner, A.J., Syvitski, J.P.M., Overeem, I., and Brakenridge, G.R., December 3-7, 2012. Human induced flooding of the Indus River in 2010: How it changed the landscape. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Kettner, A., Syvitski, JPM, I. Overeem; G.R. Brakenridge, 2012, Human induced flooding of the Indus River in 2010: How it changed the landscape. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

2011

- Brakenridge, G.R., 2011, Core-collapse supernovae and the Younger Dryas/terminal Rancholabrean extinctions, *Icarus*, doi:10.1016/j.icarus.2011.06.043.
- Khan, S. I., Y. Hong, J. Wang, K. K. Yilmaz, J. J. Gourley, R. F. Adler, G. R. Brakenridge, F. Policelli, S. Habib, and D. Irwin, 2011, Satellite remote sensing and hydrological modeling for flood inundation mapping in Lake Victoria Basin: Implications for hydrologic prediction in ungauged basins. *IEEE Transactions on Geoscience and Remote Sensing*, 49, 85-95, doi: 10.1109/TGRS.2010.2057513.

- Hopson, T.M., De Groeve, T.D., Brakenridge, G. R., Gebremichael, M. and Restrepo, P.J., 2011, Upstream Satellite-derived flow signals for river discharge prediction. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Syvitski, J. P. M., Kettner, A. J., Brakenridge, G. R., 2011, Global overview on delivery of sediment to the coast from tropical river basins. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Kettner, A. and Brakenridge, G.R., 2011, Estimating time series of fluvial suspended sediment by applying remote sensing techniques. *European Geophysical Union Annual Meeting 2011*, Vienna*
- Syvitski, J. P. M., Brakenridge, G. R., Hannon, M.D., 2011, The Great Indus Flood of 2010. RCEM 2011: *7th IAHR Symposium on River, Coastal and Estuarine Morphodynamics*, Sept. 6~8, 2011, Tsinghua University, Beijing, China.*
- Brakenridge, G. R., Kettner, A.J., Syvitski, J., Policelli, F., De Groeve, T., and Nghiem, S., 2011, Predicting and managing the effects of extreme floods using orbital remote sensing, *IEEE International Geoscience and Remote Sensing Symposium*, Vancouver, Canada, August 1-5, 2011.*

2010

- Adhikari, P., Hong, Y., Douglas, K. R., Kirschbaum, D., Gourley, J. J., Adler, R.F., and Brakenridge, G. R., 2010: A digitized global flood inventory (1998-2008): Compilation and preliminary results. *Natural Hazards*, 55, 405-422, doi: 10.1007/s11069-010-9537-2.
- Kugler, Z., Brakenridge, G. R., and De Groeve, T., 2010, Microwave satellite data to quantify effects of global climate change on arctic rivers, *Proc. SPIE 7825*, 782508 (2010); doi:10.1117/12.866021.
- Syvitski, J. P. M., Brakenridge, G. R., 2010, Connection between floodplains and delta plains with examples: Indus, Yellow and Niger. *Landscapes into Rock, Geological Society London*.
- Syvitski, JPM, Brakenridge, GR, Kettner, AJ, 2010, Divergent Flow of Water and Sediment in Lowland Coastal Settings. *18th International Sedimentological Congress*, Mendoza Argentina*.
- Brakenridge, G. R, Syvitski, J. P. M., Kettner, A. J., Overeem, I., Sneddon, C., Fox, C., 2010, Predicted effects of future dams and levees on flood hydrology, sediment fluxes, and deltas: implications for sustainable river management. The Global Dimensions of Change in River Basins Threats, Linkages, and Adaptations, 6 – 8 December 2010, Bonn, Germany.*
- Brakenridge, G. R, Kettner, A. J, Overeem, I, Nghiem, S. V., Groeve, T., Syvitski, J. P. M., 2010, Effects of fluvial morphology on orbital remote sensing measurements of river discharge. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Brakenridge, G.R., Kettner, A.J., Overeem, I., Nghiem, S.V., De Groeve, T., Syvitski, J.P., 2010, Effects of Fluvial Morphology on Remote Sensing Measurements of Discharge. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Policelli, F., Brakenridge, G. R., Ouzounov, D. P., Sun, J., Slayback, D. A, Fatoyinbo, L., 2010, Remote sensing-based flood mapping for disaster management applications. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*
- Granger, S.L., Lean, P., Kim, J., Molotch, N.P., Waliser, D.E., Brakenridge, G. R., Stough, T., Mattman, C., Hart, A., Farr, T.G., Case, K. and Kaki, S., 2010, Using remote sensing for water resource management. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

Syvitski, J.P.M., Brakenridge, G.R., Kettner, A. J. and Overeem, I, 2010, Storm surge flooding of deltas made susceptible by human activities. *Storm Surges Congress (LOICZ)*, Hamburg, Germany*

Brakenridge, G.R. and Peckham, S.D., 2010, Remote sensing-based flood mapping and hazard assessment in Haiti. For "Rebuilding for Resilience: How Science and Engineering Can Inform Haiti's Reconstruction, March 22 - March 23, 2010, University of Miami, Coral Gables, FL*

2009

ISDR, 2009, Global Assessment Report on Disaster Risk Reduction, "*Risk and Poverty in a Changing Climate*", United Nations, Geneva, Switzerland, International Strategy for Disaster Reduction, also online at: www.preventionweb.net/gar09 (co-contributor, pages 31-36.)

Syvitski, J. P. M., Kettner, A. J., Hannon, M. T., Hutton, E. W. H., Overeem, I., Brakenridge, G. R., Day, J., Vorosmarty, C., Saito, Y., Giosan, L., and Nicholls R. J., 2009, Sinking Deltas. *Nature Geoscience*, v.2, 681-686.

Lotsch, A., Dick, W., Manuamorn, O.P., 2009, Assessment of Innovative Approaches for Flood Risk Management and Financing in Agriculture. Commodity Risk Management Group Agriculture and Rural Development Department, The World Bank Group, 124 p. Background paper by Brakenridge was incorporated into this report.

Khan, S., Hong, Y., Wang, J., Yilmaz, K., Gourley, J. J., Policelli, F., Habid, S., and Irwin, D., 2009, Satellite remote sensing and hydrological modeling for flood inundation mapping in Lake Victoria Basin: implications for hydrologic prediction in ungauged basins. *Fall Meeting, American Geophysical Union*, San Francisco, CA.*

2008

Kuszmaul, J. S., Johnson, E. G., Easson, G., Hossain, Brakenridge, R., Cherrington, E., T., Gubbels, 2008, Integration of NASA Global Precipitation Measurement Mission Data into the SERVIR Flood Decision Support System for Mesoamerica. Report, 24 pages, https://www.researchgate.net/publication/254957444_Integration_of_NASA_Global_Precipitation_Measurement_Mission_Data_into_the_SERVIR_Flood_Decision_Support_System_for_Mesoamerica.

2007

Brakenridge, G.R., Nghiem, S.V., Anderson, E., and Mic, R., 2007, Orbital microwave measurement of river discharge and ice status. *Water Resources Research*, v.43, W0405, doi:10.1029/2006WR005238, 16p.

Caquard, S., and G. R. Brakenridge, 2007: Floods. Glimpses of a Changing World: *Views of Planet Earth from Space*, M. D. King, C. L. Parkinson, K. C. Partington, and R. G. Williams, Eds., Cambridge University Press, 84-87.

Kugler, Z., De Groeve, T., G. R. Brakenridge, T. Benoist, 2007, Towards Near-real Time Global Flood Detection System, The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, *10th Intl. Symposium on Physical Measurements and Signatures in Remote Sensing*, ISPMSRS'07, Davos.

De Groeve, T., Kugler, Z., and Brakenridge, G. R., 2007, Near real time flood alerting for the global disaster alert and coordination system. In *Proceedings of the 4th International ISCRAM Conference* (B. Van de Walle, P. Burghardt, and C. Nieuwenhuis, Eds. Delft, the Netherlands).

Cassidy, D.F., Brakenridge, G.R., and Tracy, B., 2007, The deep testing program of the Iroquois Pipeline. *Bulletin of the Archaeological Society of Connecticut*, v. 69, p. 39-58.

2006

Brakenridge, G.R., and Anderson, E., 2006, MODIS-based flood detection, mapping, and measurement: the potential for operational hydrological applications. In: *Transboundary Floods: Reducing the Risks Through Flood Management*, Springer-Verlag, Netherlands, J. Marsalek et al, Eds, 16p.

Brakenridge, G.R., Anderson, E., MODIS-based flood detection, mapping, and measurement: the potential for operational hydrological applications. In: *Flood Risk Management: Hazards, Vulnerability, Mitigation Measures, Proc. of NATO Advanced Research Workshop*, Ostrov u Tise, Czech Republic, Oct. 6-10 (2004), Springer-Verlag.

Ip, F., Dohm, J.M., Baker V.R., Brakenridge, R., Davies, A.G. and Chien, S., 2006, Autonomous Flood Sensorweb: Multi-Sensor Rapid Response and Early Flood Detection. *Proceedings of the 3rd Biennial meeting of the International Environmental Modelling and Software Society*, Burlington, Vermont, July 9-13, 2006, 4 p.

Brakenridge, G.R., Anderson, E., and Nghiem, S.V., 2006, Orbital remote sensing of river ice, Siberia and Alaska. *Geological Society of America Annual Meeting*, Philadelphia, Pennsylvania.*

2005

Brakenridge, G.R., Nghiem, S.V., Anderson, E., and Chien, S., 2005, Space-based measurement of river runoff. *EOS, Transactions of the American Geophysical Union*, v. 86, no. 19, p. 185-188.

2004

Brakenridge, G. R., Nghiem, S.V., Anderson, E. and Caquard, S., 2004, Optical and radar remote sensing measurements of the extreme flood of 2003, Indus River, Pakistan and NW India. *American Geophysical Union, Spring Meeting*, Baltimore, abstract #U21A-01*.

Brakenridge, G.R. and Nghiem, S.V. 2004. Satellite-based flood detection, mapping, and river monitoring in near real time. *Natural Hazards and Disaster Management Support Symposium*, India-United States Conference on Space Science, Applications, and Commerce, Bangalore, India, p. 150.

Brakenridge, G., Nghiem, S., Caquard, S. A, 2004, A global hydrographic array for early detection of floods and droughts. 35th COSPAR Scientific Assembly. 18 - 25 July 2004, Paris, France., p.1889.

Nghiem, S. V., E. G. Njoku, G. R. Brakenridge, Y. Kim, and G. Neumann, Land surface water cycles observed with satellite sensors, *Joint 19th Conference on Hydrology and 16th Conference on Climate Variability and Change, 85th Amer. Meteor. Soc. Annual Meeting*, San Diego, CA, 9-13 Jan. 2004. *

Chien, S., and others, 2004. Using automated planning for sensorweb response. *International Workshop on Automated Planning and Scheduling for Space*, Darmstadt, Germany, June 23-25, 2004, Jet Propulsion Laboratory, National Aeronautics and Space Administration, <http://trs-new.jpl.nasa.gov/dspace/handle/2014/39138>, 8p.

Brakenridge, G. R., Nghiem, S. V., Anderson, E., Caquard, S., 2004, Optical and Radar Remote Sensing Measurements of the Extreme Flood of 2003, Indus River, Pakistan and NW India. *American Geophysical Union, Spring Meeting*, abstract #U21A-01.*

- Caquard, S. and Brakenridge, G.R., 2004. Large floods on the Kenyan Side of Lake Victoria. Report and large-scale map for the *Associated Programme on Flood Management, UN-World Meteorological Organization*, Geneva. 7p.
- Caquard S., Brakenridge G. R. and Anderson E., 2004, Change in Extreme Floods since 1985: A Global Perspective. *100th AAG Annual Meeting*, Philadelphia, PA, Mar. 14-19, 2004*.
- Mertes, L. A. K., Dekker, A. G., Brakenridge, G. R., Birkett, C. M., Le Toueneau. G. 2004. Rivers and Lakes, in *"Manual of Remote Sensing, vol. 5, Natural Resources and Environment"*, S. Ustin, editor and A. Rencz, general editor, John Wiley and Sons, NY, (2004) p. 345-400.
- Brakenridge R., Caquard S., Anderson E, The role of flood remote sensing in flood hazard assessment. *99th AAG Annual Meeting*, New Orleans, LA, March 5-8, 2003*
- Gubbels, T. and G.R. Brakenridge, Flood disaster hits Hispaniola. *Feature, The Earth Observatory*, 2004. <http://earthobservatory.nasa.gov/Study/Haiti2004/>.

2003

- Brakenridge, G. R., Carlos, H., and Anderson, E., 2003. Satellite gaging reaches: a strategy for MODIS-based river monitoring. *9th International Symposium on Remote Sensing*, International Society for Optical Engineering (SPIE), Crete, Greece, and Proceedings of SPIE, Vol. 4886, p. 479-485.
- Dohm, J.M, Chien, S., Brakenridge, G., Baker, V. and 13 other co-authors, 2003. Streamlining spacecraft observation response to flood detection with a ground and space-based sensor web system. *American Geophysical Union Fall Meeting*, San Francisco.*
- Nghiem, S. V., Barber, D. G., Brakenridge, G. R., Leshkevich, G. A., Markus, T., Neumann, G., Njoku, E. G., Perovich, D. K., Steffen, K., Sturm, M., van Woert, M. L. 2003, Surface water applications of satellite scatterometry. *American Geophysical Union Fall Meeting*, San Francisco.*
- Caquard S., Brakenridge R. and Anderson E., 2003, Interannual Variability, Seasonality & Global Patterning of River Floods since 1985, *Paper presented at the Global Water System Project - Open Science Conference*, Portsmouth, NH, Oct. 07-09, 2003.*

2002

- Caquard, S. and Brakenridge, G.R., 2003, Mapping the limits of information: A prototype for diffusing large flood events data on the Internet. *Proceedings of the 6th AGILE*, April 24-26, Lyon, France. 4p.
- Brakenridge, G.R., Anderson, E., and Carlos, H., 2002, Satellite gaging reaches: a technique for streamflow measurements from space. *Geological Society of America Annual Meeting, Denver, Abstracts with Program**
- Brakenridge, G. R., Anderson, E., Nghiem, S. V., Caquard, S., and Shabaneh, T., 2002. Flood warnings, flood disaster assessments, and flood hazard reduction: the roles of orbital remote sensing. *Proceedings of the 30th International Symposium on Remote Sensing of the Environment*, Honolulu, Hawaii, November 10-14, 4 p
- Brakenridge R., Caquard S., Anderson E., and Carlos H., Potential Uses of space-base flood mapping for disaster management in Asia and the Pacific, *UN Regional Workshop on Space Technology*, Bangkok, Thailand, Nov. 11-15, 2002*
- Brakenridge, G. R., H. A. Carlos, S. V. Nghiem, and E. Anderson, 2002, QuikSCAT/SeaWinds monitoring of large seasonal wetlands. *American Geophysical Union Fall Meeting*, San Francisco.*

Mertes, L. A. K. and Brakenridge, G. R., 2002, Remote discharge measurements and connectivity mapping for rivers and floodplains. *Report for CUAHSI, Science-based Infrastructure for the Hydrologic Sciences.*

2001

Brakenridge, G.R., 2001, MODIS capabilities for flood remote sensing. *EOS Investigators Working Group (IWG) meeting, Ft Lauderdale, Florida**

Brakenridge, G. R., Anderson, E., and Finnegan, D.C., 2001, Floodplain geomorphology, flood magnitudes, and flood remote sensing. *Geological Society of America Annual Meeting, Boston, Abstracts with Program**

2000

Finnegan, D., Brakenridge, G. R., Anderson, E., and Stender, A., 2000, Measuring Floods from Space: Constraints and Opportunities. *Association of American Geographers National Meeting Abstracts**

Finnegan, D.C., Gomez, B. and Brakenridge, G.R., 2000, Measuring Flood Inundation Limits from Space. *American Geophysical Union Abstracts.**

1999

Brakenridge, G. R., 1999, River flooding and Global Climate Change: A Multisensor Approach, in *"Earth Science Enterprise Reference Handbook"*, R. Greenstone, Ed., EOS Project Science Office, Code 900, NASA/Goddard Space Flight Center, Greenbelt, Maryland, p. 163-165.

1998

Brakenridge, G.R., 1998. Flood remote sensing in the 21st century. *Proceedings of International Workshop on the utilization of remote sensing technology to natural disaster reduction*, Japan-United States Science and Technology Agreement (JUST). Oct 26-28, 1998, Tskuba, Japan, p. 236-238

Brakenridge, G. R., Tracy, B. T., and Knox, J. C., 1998, Orbital remote sensing of a river flood wave. *International Journal of Remote Sensing*, v. 19, p. 1439-1445.

Brakenridge G. R, 1998, Supernovae and the Younger Dryas: the Case for Terrestrial Environmental Effects at 11,000 yr B.P. from Vela X. *IGCP 384 Annual Meeting, Budapest.*

1997

Brakenridge, G. R., 1997, Synthetic aperture remote sensing applications to flood disasters. Conference on GIS and applications of remote sensing to disaster management, NASA and FEMA, Greenbelt, MD, January 13-15, 1997.*

1996

Mertes, L.A.K., Brakenridge, G. R., Hirschboeck, K.K., Prestegard, K., and Warner, W. S., 1996, River flooding and global environmental change: a multi-sensor approach. *American Geophysical Union, Union Session O4, Recent Developments in Natural Hazards Research and Technology.**

Brakenridge, G. R., Tracy, B. T., Bryant, E. and Knox, J. C., 1996, Orbital SAR observation of extreme floods. *Proceedings of the 11th Thematic Conference, Geologic Remote Sensing, ERIM, Las Vegas, Nevada*, p. I-297. *

Brakenridge, G. R., and Karnes, D., 1996, The Dartmouth Flood Observatory: an electronic research tool and electronic archive for investigations of extreme flood events. *Geological Society of America Annual Meeting, Geoscience Information Society Proceedings.*

Brakenridge, G.R., 1996, Flood mapping in the Mississippi Basin. In "New Views of the Earth", Applications Achievements of ERS-1, European Space Agency, ESA Publications Division, ESTEC, Noordwijk, Netherlands, SP-1176/II, p. 92. *

Brakenridge, G. R., 1996, Relative age determination from 1:1.5 million geological mapping, Sapas Mons FMAP, Venus. *26th Lunar and Planetary Science Conference, Houston*.*

1995

Brakenridge, G. R. and Oswald, W., 1995, Geomorphological framework for satellite radar-based imaging of storm runoff, northeastern Syria. *GERTEC Symposium (Geomorphic Response of Mediterranean and Arid Areas to Climate Change*", Jerusalem, Israel, 14-21 May 1995*.

1994

Brakenridge, G. R., Tracy, B. T., Knox, J. C., and Magilligan, F. J., 1994. ERS-1 remote sensing of floodwater surface profiles. *Abstract, 25th Binghamton Geomorphology Symposium**

Brakenridge, G. R., Knox, J. C., Magilligan, F. J., and Paylor, E., 1994. Radar remote sensing aids study of the Great Flood of 1993. *EOS, Transactions of the American Geophysical Union*, 75(45), p. 521.

Brakenridge, G. R., 1994, Orbital Remote Sensing of the 1993 Mississippi Valley Flood. *Geological Society of America Annual Meeting**

Brakenridge, G. R., 1994, A Mars Pathfinder landing on a recently drained ephemeral sea: Cerberus Plains, 6°north, 188° west. *NASA/LPI Landing Site Selection Workshop**

1993

Brakenridge, G. R., 1993, Ancient Martian valley genesis and paleoclimatic inference: the present as a key to the past. *NASA/LPI Workshop on Early Mars: How Warm and How Wet?* (July 26-28, 1993).*

Brakenridge, G. R., 1993, Modern shelf ice, equatorial Aeolis Quadrangle, Mars. *Abstracts of the 24th Lunar and Planetary Science Conference*, Houston, Texas*.

1992

Brakenridge, G. R., 1992, Geology and Global Change. *Geotimes*, June, p. 5.

Brakenridge, G.R. and Hagedorn, J. (Editors), 1992, Floodplain Evolution. Special Issue of *Geomorphology*, 4: 367-379.

1991

Wyckoff, D.G., Carter, B.J., Dort, W., Brakenridge, G. R., Martin, L., Theler, J. L., and Todd, L. C., 1991, Northwestern Oklahoma's Burnham Site: glimpses beyond Clovis. *Current Research in the Pleistocene*.

1990

Brakenridge, G. R., 1990, The origin of fluvial valleys and early geological evolution, Aeolis Quadrangle, Mars: *Journal of Geophysical Research*, v. 95, p. 17289-17308.

Brakenridge, G. R., 1990, Quaternary geomorphology of northwestern Oklahoma County: implications for geoarchaeology. In: "A survey of archaeological resources and an evaluation of buried site potential in northwestern Oklahoma County, Oklahoma" (J. L. Hofman and R.P. Drass, Eds.), *Oklahoma Archaeological Survey Report No. 36*, p. 45-57.

1989

Brakenridge, G. R., Hofman, J.L., Carter, B.J., and Drass, R.R., 1989, Quaternary geomorphology of northwestern Oklahoma County: implications for soil geography and geoarchaeology: *Annual Meeting Program and Abstracts, Association of American Geographers*, p. 22.*

1988

Brakenridge, G.R., Thomas, P.A., Conkey, L.E, and Schiferle, J., 1988, Fluvial sedimentation in response to postglacial uplift and environmental change, Missisquoi river, Vermont: *Quaternary Research*, v. 30, p. 190-203.

Brakenridge, G. R., 1988, Floodplain stratigraphy and flood regime, in "*Flood Geomorphology*" (V.R Baker, C. Kochel, and P.C. Patton, Eds.). John Wiley and Sons, New York.

Brakenridge, G. R., 1988, Origin of fluvial valleys and early geological history, Aeolis Quadrangle, Mars: *Geol. Society of America Abstracts with Program*, v. 20, no. 7, p. A-76*.

Schumm, S. A., and Brakenridge, G. R., 1988, River responses, in "North America and Adjacent Oceans During The Last Deglaciation" (W. F. Ruddiman and H. E. Wright, Eds.). *Geological Society of America Centennial Special Volume K-3*, Boulder, Colorado.

Brakenridge, G. R., 1988, Origin and implications of the terminal Rancholabrean-age Lower Domebo Member, western Oklahoma: *American Quaternary Association, Abstracts of the Tenth Biennial Meeting, University of Massachusetts, Amherst*, p. 110.

1987

Mills, H. H., Brakenridge, G. R., Jacobson, R. B., Newell, W. L., Pavich, M. J., and Pomeroy, J. S., 1987, Appalachian mountains and plateaus, in "Geomorphic Systems of North America" (W. L. Graf, Ed.). *Geol. Soc. of Amer. Centennial Special Volume 2*, Boulder, Colorado, 5-50.

Brakenridge, G. R., and Williams, D. D., 1987, Valley genesis in relation to volcanism, tectonism, and impact cratering, Aeolis Quadrangle, Mars: *Geological Society of America Abstracts with Program*, v. 19, no. 7, p. 598.*

Brakenridge, G. R., 1987, Intercrater plains deposits and the origin of Martian valleys: In *MEVTV Workshop on the Nature and Composition of Surface Units on Mars*, Lunar and Planetary Institute Technical Report 88-05, Houston, p. 31-32.*

1986

Brakenridge, G.R., and Schuster, J., 1986, Quaternary geology and geomorphology in relation to archeological site locations, southern Arizona: *Journal of Arid Environments*, v. 10, p. 225-239.

Brakenridge, G.R., 1986, Small valley networks and the past and present distribution of subsurface volatiles, Aeolis Quadrangle, Mars: *17th Lunar and Planetary Sci.*, p. 82-83*.

Brakenridge, G. R., Thomas, P. A., Schiferle, J. C., and Conkey, L. E., 1986, Floodplain sedimentation, postglacial uplift, and environmental change, Missisquoi River, Vermont: *American Quaternary Association, Abstracts of the Ninth Biennial Meeting*.*

Schuster, J. H. and Brakenridge, G. R., 1986, Late Quaternary geology and geomorphology along the Phase B corridor. Chapter 2, in "*A class III archaeological survey of the phase B corridor, Tucson Aqueduct, Central Arizona Project*", (Downum, C.E., Rankin, A.G., and Czaplicki, J.S., Eds.), Cultural Resources Management Division, Arizona State Museum., Archaeological Series 168, p. 12-28.

Vetter, M. and Brakenridge, G.R., 1986, Hartford and Deerfield basin framework mineralogies: independent evidence for provenance, current directions, and tectonic history: *Abstracts of the Annual Convention, American Association of Petroleum Geologists**.

1985

- Brakenridge, G. R. and Vuong, T. 1985. Bagnold's log hyperbolic approach to sand grain size analysis as adapted to a large sedimentation tower. *Abstracts of the Annual Convention, American Association of Petroleum Geologists*, New Orleans*.
- Brakenridge, G. R., 1985, Rate estimates for lateral bedrock erosion based on radiocarbon ages, Duck River, Tennessee: *Geology*, v. 13, p. 111-114.
- Brakenridge, G. R., 1985, Quaternary stratigraphy and fault hazard evaluation (Discussion): *Bulletin of the Association of Engineering Geologists*, v. 22, p. 101-103.
- Brakenridge, G. R., Newsom, H. E., and Baker, V. R., 1985, Ancient hot springs on Mars: Origins and paleoenvironmental significance of Martian valleys: *Geology*, v. 13, p. 859-862.
- Brakenridge, G.R., Newsom, H.E., and Baker, V.R., 1985, Hot springs on Mars: origins and paleoenvironmental significance of small Martian valleys: *Geological Society of America Abstracts With Programs*, v. 17(7), p. 530*.
- Brakenridge, G.R., 1985, Discussion of: Gradational thresholds and landform singularity: *Quaternary Research*, v. 23, p. 417-419.

1984

- Brakenridge, G. R., 1984, Alluvial stratigraphy and radiocarbon dating along the Duck River, Tennessee: implications regarding floodplain origin: *Geol. Soc. of Amer. Bull.*, v. 95, p. 9-25.
- Brakenridge, G. R., 1984, Sediment storage changes in the floodplain subsystem as inferred from terraces, fluvial stratigraphy, and radiometric dates: *Transactions, American Geophysical Union*, v. 65 (16), p. 217.*
- Brakenridge, G.R. and Schiferle, J. C., 1984, Paleohydrology and sedimentology of meandering river floodplains, Vermont: *Geol. Soc. Amer. Abstracts With Programs*, v. 16(6), p. 453. *
- Brakenridge, G. R., 1983, Holocene fluvial stratigraphy and its application to flood frequency analysis: *International Union of Geodesy and Geophysics 17th General Assembly, Abstracts With Program* (Hamburg, West Germany), v. 1, p. 235*

1983

- Dickinson, et al., 1983, Provenance of North American Phanerozoic sandstones in relation to tectonic setting. *Geological Society of America Bulletin*, v. 94, p. 222-235.
- Brakenridge, G. R., 1983, Late Quaternary floodplain sedimentation along the Pomme de Terre River, southern Missouri: Part II, notes on sedimentology and pedogenesis: *Geologisches Jahrbuch, Series A*, v. 71, p. 265-283.

1982

- Baker, V. R. and Brakenridge, G. R., 1982, Formation of valley networks on Mars: *Geological Society of America Abstracts with Programs*, v. 14, p. 438.*
- Baker, V. R., Brakenridge, G. R., and Kochel, R. C., 1982, Valley networks on Mars: mapping and morphogenesis. Reports of Planetary Geology Program-1982, *NASA Technical Memorandum 85127*, p. 200-208.
- Brakenridge, G. R. 1982. Alluvial stratigraphy and radiocarbon dating along the Duck River, central Tennessee: implications regarding floodplain origin. *Abstracts from the 11th International Quaternary Association Congress*, Moscow, USSR, p. 7-1.*
- Brakenridge, G.R., 1982, Paleogeomorphic and paleohydrologic implications of top stratum/bottom stratum thicknesses along meandering rivers. *Proceedings of the Eleventh International congress on Sedimentology*, Hamilton, Ontario.*

Uytana, V.F. and Brakenridge, G. R. 1982. Quaternary climatic change and the genesis of metalliferous ore deposits. *American Quaternary Association, Abstracts of the Seventh Biennial Meeting*. *

1981

Brakenridge, G. R., 1981, Late Quaternary floodplain sedimentation along the Pomme de Terre River, southern Missouri. *Quaternary Research*, v. 15, p. 62-76.

Turner, W. B., Brakenridge, G. R., and Hofman, J.L., 1981, A technique to aid in the recording and field interpretation of stratigraphic sections in archeological deposits. *Journal of Field Archeology*, v. 9, p. 133-136.

Brakenridge, G. R., 1981, Alluvial stratigraphy and radiocarbon dating, Duck River, Tennessee: floodplain response to environmental change. *Geological Society of America Abstracts With Programs*, v. 13(7), p. 415*.

Brakenridge, G. R., 1981, Terrestrial paleoenvironmental effects of a late Quaternary-age supernova. *Icarus*, v. 46, p. 81-93.

1980

Brakenridge, G. R., 1980, Widespread episodes of stream erosion during the Holocene and their climatic cause. *Nature*, v. 283, p. 655-656.

Brakenridge, G. R., 1980, Quaternary valley development and floodplain sedimentation along the Pomme de Terre River, southern Missouri: *Abstracts of Lectures, INQUA/IGCP Paleohydrology Project 158 "Symposium Franken"*, University of Duesseldorf*.

1979

Brakenridge, G. R., 1979, The impact of climatic change on floodplain sedimentation, soil formation, and eolian activity in southern Missouri: *Geo. Soc. of Amer. Abstracts with Programs*, v. 11(7), p. 393*.

1978

Brakenridge, G. R., 1978, Evidence for a cold, dry, full-glacial climate in the American Southwest. *Quaternary Research*, v. 9, p. 22-40.

Brakenridge, G. R., 1978, The Pleistocene/Holocene climatic boundary. *American Quaternary Association, Abstracts of the Fifth Biennial Meeting**.

Brakenridge, G.R., 1978, Quaternary deposits and soils in southern Missouri, USA, and their paleoclimatic significance. *Proceedings of the Tenth International Congress on Sedimentology*, Jerusalem, p. 82-83*.

1976

Brakenridge, G. R., 1976. Present water supply in the Cochiti study area, northcentral New Mexico. In *"Archaeological investigations in Cochiti Reservoir, New Mexico, V. 1, A survey of regional variability"*, J.V. Biella and R.C. Chapman, editors, University of New Mexico, Department of Anthropology, Office of Contract Archeology, Albuquerque. P. 89-95.

1975

Brakenridge, G. R., 1976, Flow indices: a means to quantitatively compare seasonal mean flows in ungauged intermittent streams. *Geo. Soc. of America Abstracts With Programs*, v. 8(5), p. 571*.