

## G. ROBERT BRAKENRIDGE

Founder and Associate Director, Dartmouth Flood Observatory

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### 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

### EMPLOYMENT

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

2023 Fulbright Specialist Scholarship, Budapest University of Technology and Economics, September, 2023

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

2012-2016 International Working Group on Satellite Emergency Mapping (IWG-SEM)

2014-2018 Steering Committee, Global Flood Partnership: organizations engaged in 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. European Commission project; 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, 5<sup>th</sup> Meeting of the Global Flood Partnership, NCAR/University of Colorado, Boulder, CO
- 2014 Co-convener with F. Pappenberger and T. De Groeve, 4<sup>th</sup> 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 Management, Flood Pilot Users Working Group, NASA LANCE (Land Atmosphere Near-real time Capability)
- 2011-2022 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 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. Dissertation External Reviewer, “Global satellite-based measurement of river and reservoir dynamics”, Jiawei Hou, Australian National University, 2020
- 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 Stochak, 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=iotd\\_previous](http://earthobservatory.nasa.gov/IOTD/view.php?id=88729&eocn=home&eoci=iotd_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*. 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 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**

“Solar system exposure to supernova gamma-ray radiation”, Leiden Observatory Colloquia, November 11, 2021

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

“GeoSUR/Flood Observatory Collaboration for Water Resources and Flood Hazard Needs”, with E. Van Praag, 9<sup>th</sup> 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”, 9<sup>th</sup> 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, Co-authored Chapter in “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 proposals review panels, 1984-present.

*Fellow*, Geological Society of America; *Member*, American Geophysical Union

*Watershed Advisory Board/Ecology Advisory Board member*, Lyons, Colorado, 2017-2018, 2020-

*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)

#### **2023**

Munasinghe, D., Frasson, R. P., David, C. H., Bonnema, M., Schumann, G. and Brakenridge, G. R., A multi-sensor approach for increased measurements of floods and their societal impacts from space. *Communications Earth & Environment* 4:462, <https://doi.org/10.1038/s43247-023-01129-1>.

Nghiem, S. V., Podkova, A., Kugler, Z. and Brakenridge, G. R., Monitoring Mekong river system and riparian environments with SMAP satellite data in synergy with multiple remote sensing and in situ observations. American Geophysical Union Annual Meeting, San Francisco, H070\*

- Brakenridge, G. R., Nghiem, S. V., and Kugler, Z., 2023, Passive microwave radiometry at different frequency bands for river discharge retrievals. *Earth and Space Science* 10, 8, e2023EA002859.
- Kugler, Z. Nghiem, S. V., Brakenridge, G. R., and Podkova, A., 2023, River flow monitoring with passive microwave radiometry and potential synergy with SWOT. *IGARSS 2023*, 5 p.
- Podkova A., Kugler Z., Nghiem S., and Brakenridge, G. R., 2023, Ice freeze-up and break-up in Arctic Rivers observed with satellite L-band passive microwave data from 2010 to 2020. *Water Resources Research*, e2022WR031939.
- Nghiem, S. et al, 2023, Passive microwave emission theory and applications to satellite measurements of global rivers. *European Geophysical Union Annual Meeting\**
- Downs, B., Kettner, A. J., Chapman, B., Brakenridge, G. R., O'Brien, A., Zuffada, C., 2023, Assessing the Relative Performance of GNSS-R Flood Extent Observations: Case Study in South Sudan. *IEEE Transactions on Geoscience and Remote Sensing* 61
- 2022**
- Policelli, F. S., Brakenridge, G. R., Kettner, A.J., and Tellman, B. 2022, The NASA GSFC Near Real Time Flood Mapping System. *American Geophysical Union Annual Meeting\**.
- Wilson-Downs, B, Kettner, A. J., Brakenridge, G. R., O'Brien, A., and Zuffada, C., CYGNSS flood applications to support the United Nations Sustainable Development Goals. *IGARSS 2022*, Kuala Lumpur, Malaysia, 17-22 July, 4 p.
- Nghiem, S. V., and others, Mackenzie river discharge and effects on Arctic Sea ice, biological, and biogeochemical processes in the Littoral Zone of the Beaufort Sea. *Ocean Optics XXVI Conference*, Quy Nhon, Vietnam, 2-7 October 2022\*.
- 2021**
- Kettner A. J., Brakenridge, G. R., Schumann, GJ-P, and Shen, X., Chapter 7 - DFO—Flood Observatory. *Earth Observation for Flood Applications: Progress and Perspectives*, ed Schumann, GJ-P (Elsevier), pp 147-164.
- Brakenridge, G. R., 2021, Run-of-river hydroelectric dam bank erosion and cultural resources in Vermont. Consulting report for State of Vermont, 28 p.
- Brakenridge, G. R., Nghiem, S.V., and Kugler, Z., Merged AMSR-E/AMSR-2 and GPM passive microwave radiometry for measuring river floods, runoff, and ice cover. *Earth Observation for Flood Applications*, ed Schumann, GJ-P (Elsevier), pp. 337-360.
- Lorenzo A & al e (2021) Chapter 17, Global Flood Partnership. *Global Drought and Flood: Observation, Modeling, and Prediction*, American Geophysical Union Geophysical Monograph Series, eds Wu, H., Lettenmaier, D.P., Tang, Q., and Ward, P.J., Wiley Online Library, pp 307-322.
- Tellman B, *et al.*, 2021, Satellite imaging indicate increasing proportion of population exposed to floods. *Nature* 596:80-86.
- Brakenridge, G. R., 2021, Solar System exposure to supernova gamma radiation. *International Journal of Astrobiology* 20, 48-61
- 2020**
- Peter, B. G., Cohen, S., Lucey, R., Munasinghe, D., Raney, A., and Brakenridge, G. R., 2020, Google Earth Engine implementation of the floodwater depth estimation tool (FwDET-GEE) for rapid and large scale flood analysis. *IEEE Geoscience and Remote Sensing Letters*, doi: 10.1109/LGRS.2020.3031190.

Cohen, S. and others, 2020, Beyond flood extent: augmenting near-real-time remote sensing with water depth and impact assessment tools to measure water discharge and analyze flood frequency. *American Geophysical Union Fall Meeting, Confounding Major Disasters in 2019-2020, AGU Union Session\**.

Kettner, A., Brakenridge, G. R., and Filizola, N., 2020. Utilizing remote sensing to measure water discharge and analyze flood frequency, *American Geophysical Union Fall Meeting\**.

Kettner, A. J., Schumann, Guy J.-P., Brakenridge, G. R., 2020, 'Applying remote sensing to support flood risk assessment and relief agencies: a global to local approach. *IGARSS 2020 program\**.

## 2019

Nghiem, S. V., Kugler, Z., Brakenridge, G. R., 2019, River Gauging with SMAP, SMOS, AMSR-2, and Jason-2 Satellite Data. *American Geophysical Union Fall Meeting\**.

Restrepo, J. D., Kettner, A. J., Brakenridge, G. R., 2019, Monitoring water discharge and floodplain connectivity for the Northern Andes utilizing satellite data: A tool for river planning and science-based decision-making. *Journal of Hydrology*, 586, 1-13.

Ziyue, Z., Gan, Y., Kettner, A. J., Yang, Q., Chao, Z., Brakenridge, G. R., Hong, Y., 2019, Towards high resolution flood monitoring: an integrated methodology using passive microwave brightness temperatures and Sentinel synthetic aperture radar imagery. *Journal of Hydrology*. doi.org/10.1016/j.jhydrol.2019.124377.

Cohen, S., Raney, A., Munasinghe, D., Loftis, D., Molthan, A., Bell, J., Rogers, L., Galantowicz, J., Brakenridge, G. R., Ketter, A. J., Huang, Y-F, Tsang, Y-P., 2019, The Floodwater Depth Estimation Tool (FwDET v2.0) for improved remote sensing analysis of coastal flooding. *Natural Hazards and Earth System Sciences* 19, 2053–2065.

Frasson, R. P., Schumann, G., Kettner, A. J., Brakenridge, G. R., and Krajewski, W. F., 2019, Will the Surface Water and Ocean Topography (SWOT) mission observe floods? *Geophysical Research Letters*, <https://doi.org/10.1029/2019GL084686>.

Kugler, Z. Nghiem, S. V., and Brakenridge, G. R., 2019, L-Band passive microwave data from SMOS for river gauging observations in tropical climates. *Remote Sensing*, 11, 835; doi:10.3390/rs11070835.

## 2018

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 non-obstructed flood inundation mapping using Synthetic Aperture Radar (SAR). *Remote Sensing of the Environment*, 221, 302-315.

Brakenridge, G. R., 2018, Flood risk mapping from orbital remote sensing, Chapter in “Global Flood Hazard: applications in modeling, mapping and forecasting”, AGU Monograph Series, G J-P Schumann, P. D. Bates, H. A. And G. T. Aronica, eds., 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

- Nghiem, S.V., Brakenridge, G. R., Nguyen, D. T., 2018, Hurricanes Harvey and Irma – High-resolution flood Mapping and monitoring from Sentinel SAR with the Depolarization Reduction Algorithm for Global Observations of Inundation (DRAGON). *American Geophysical Union, Fall Meeting 2017*, abstract #NH23E-2873
- 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.J., Cohen, S., Overeem, I, Balazs, F., Brakenridge, G.R., and Syvitski, J.P.M., 2018, Estimating change in flooding for the 21st century under a conservative RCP forcing: A global hydrological modeling assessment. In (eds: Guy J-P. Schumann, Paul D. Bates, Heiko

Apel, Giuseppe T. Aronica): Global Flood Hazard: Applications in modeling, mapping and forecasting, AGU books, 157-167.

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. Chapter 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., Zuffada, 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. *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/flooddetection/Download/Technical\\_Note\\_GFDS\\_Data\\_Products\\_v1.pdf](http://www.gdacs.org/flooddetection/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.\*
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