

Title: Research Associate at Community Surface Dynamics Modeling System (CSDMS), Institute of Arctic and Alpine Research (INSTAAR), University of Colorado.
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Research interests

My current research focuses on modeling sediment flux responses within river basins to human impact and climate change on a global scale. This includes developing methodology to simulate sediment properties based on provenance. I'm also interested in influences of rapid climate change (deglaciation) during the late Quaternary on sediment fluxes to the ocean. Additional as my role as Director of the Dartmouth Flood Observatory I'm interested in flood related data that can be detected by using remote sensing.

Education

- 2003 – 2007 PhD., “Numerical modeling of fluvial sediment supply to marine basins”, pp. 196. Department of Civil Engineering and Applied Geosciences, Delft University of Technology, The Netherlands.
1990 – 1997 MSc., “Simulated man-induced erosion in the Middle Mountains of Nepal”. Wageningen University, the Netherlands. Specialism: Tropical Forestry and GIS.
1982 – 1990 Pre-university education in: Dutch, English, Mathematics, Physics, Chemistry & Biology.

Professional experience

- 2018 – Director of the DFO – Flood Observatory (<http://floodobservatory.colorado.edu/>) located at INSTAAR.
2018 – Vice Chair Global Flood Partnership (<https://gfp.jrc.ec.europa.eu>)
2018 – Fellow at INSTAAR, University of Colorado - Community Surface Dynamics Modeling System (CSDMS). Activities:
 - CSDMS activities:
 - Responsible for the interactive CSDMS content management system (<http://csdms.colorado.edu>)
 - Responsible for the various CSDMS repositories that hold models, data and educational material.
 - Contact person for chairs Terrestrial Working Group and Carbonate Focus research group
- 2018 – 2019 Associate Director INSTAAR
2014 – 2015 Acting Associate director INSTAAR
2011 – 2017 Co-Director of the DFO – Flood Observatory
2007 – 2018 Research Scientist at INSTAAR.
2006 – 2007 Junior researcher, Delft University of Technology, The Netherlands.
2002 – 2005 Professional Scientist II at the University of Colorado – INSTAAR
 - Developing climate-driven hydrological transport model, HydroTrend
 - Case studies of simulating water discharge and sediment supply of rivers to the ocean under the influence of climate change and human impact.
 - Fieldwork in Baffin fjord, Apennine Rivers and Waipaoa River System.
- 1998 – 2001 Senior consultant GIS & head of GIS cluster, at the Ministry of Transport, Public Works and Water Management, Directorate-General of Public Works and Water Management Noord-Holland (NH) Directorate, Haarlem - The Netherlands (managing \$400K/year).

Extracurricular activities

- 2019 - Co-chair of the CSDMS Initiative: Exploring interoperability of open modeling platforms Initiative.

- 2018 – Evaluating one of NASAs DAACs by joining the GHRC DAAC User Working Group. This is a 3-year assignment during which the DAAC at Huntsville, Alabama is evaluated each year during a 2-day on-site meeting.
- 2018 – Guest Editor special issue “Advances in computational modeling of geoprocesses and geohazards” in *Natural Hazards and Earth System Sciences (NHESS)*, a Copernicus journal.
- 2017 – Associate Editor *Anthropocene Coasts*
- 2017 – Board Member of ‘Socio-Environmental Systems Modeling’ SESMO.
- 2011 – Serve on the INSTAAR Executive Committee.
- 2014 – 2016 Guest Editor special issue “Uncertainty and Sensitivity in Surface Dynamics Modeling”, *Computers & Geosciences*.
- 2011 – 2013 Guest Editor special issue “Modeling for Environmental Change”, *Computers & Geosciences*.
- 2010 – 2011 INSTAAR noon seminar series organizer.
- 2009 Interviewed by the *El Pais*, Spanish biggest newspaper. Article was regarding climate change and sea level rising.
- 2007 – 2008 Author and participant in outreach effort *BetaCanon* “What everybody needs to know about natural sciences”. Published as a series of 50 interactive columns of the major Dutch newspaper *Volkskrant* and as a volume of collected essays for K12 education and outreach.
- 2005 Interview and column for Dutch newspaper NRC on ‘Impact of Humans on the Flux of Terrestrial Sediment to the Global Coastal Ocean’ (Science publication).
- 2000 Course on Coaching and Practical Management skills (15 days).
- 1999 Course on Project management (10 days).

Graduate student advising

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|-------------|---------------|-------|--|
| 2017 – 2018 | Z. Zeng | PhD. | Tsinghua University, Beijing, China |
| 2015 – 2017 | R.E. Correa | PhD. | EAFIT university, Medellín Colombia / Southern Cross University, Australia |
| 2011 – 2012 | M. Vanmaercke | PhD. | Catholic University Leuven, Belgium |
| 2010 – 2015 | F. Xing | PhD. | University of Colorado, Boulder, CO |
| 2010 | S.C. lutzman | M.Sc. | University of Bonn, Germany |
| 2008 – 2011 | M.T. Hannon | M.Sc. | University of Colorado, Boulder, CO |
| 2006 – 2010 | K. McCarney | PhD. | University of South Carolina, SC |

Graduate student committee member

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| 2016 | S.C. Álvarez | PhD. | Universidad nacional Medellín Colombia |
| 2016 | S.M. Carter | M.Sc. | University of Alabama, Alabama |
| 2016 | F. Minikowski Achete | PhD. | Delft University of Technology, the Netherlands |
| 2015 | F. Xing | PhD. | University of Colorado, CO |
| 2011 | M.T. Hannon | M.S.c | University of Colorado, CO |
| 2007 | A.W. Bron | M.Sc. | Delft University of Technology, the Netherlands |

Active professional memberships

AGU: American Geophysical Union
 CSDMS: Terrestrial Working group
 CSDMS: Hydrology Focus Research Group
 Global Flood Partnership

Conference activities

- 2020 Part of ISESS 2020 Program Committee, for the 13th International Symposium on Environmental Software Systems, February 5-7, 2020, Wageningen, The Netherlands.

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- 2019 Co-convenor AGU fall meeting session “Global Floods: Forecasting, Monitoring, Risk Assessment, and Socioeconomic Response II”, December 9-13, 2019, San Francisco, CA.
- 2019 Co-lead, host and co-organizer of the “DFO Flood Observatory Web Services Demo Workshop”, September 10-11, 2019, Boulder CO.
- 2019 Co-organizer and co-host of “CSDMS 3.0 - Bridging Boundaries”, May 21-23, 2019, Boulder CO.
- 2019 Part of the International Scientific Committee, for the 1st Regional Conference on Environmental Modeling and Software (Asian Region) "Modelling for Environmental Sustainability: Asia's Next Great Challenge", May 18-20, 2019, Nanjing, China.
- 2018 Co-lead, host and co-organizer of the “Flood Risk Workshop”, October 1-3, 2018. Boulder CO.
- 2018 Co-organizer and co-host of “Geoprocesses, geohazards - CSDMS 2018”, May 22-24, 2018, Boulder CO.
- 2018 Co-lead and co-organizer of ‘Applied tools to monitor water discharge and flooding for South American Rivers’, March 21-22, 2018 at EATFIT University, Medellin, Colombia.
- 2018 Co-lead and co-organizer of “Use of socio-environmental systems modelling in actionable science: State-of-the-art, Open Challenges and Opportunities”, SESYNC workshop, March 13-15, 2018, Annapolis, Maryland.
- 2017 Co-lead and co-organizer half a day session “Global Flood Partnership/Hydromet: Regional Work and Implementation” during the “Disaster Risk Reduction across the Americas Summit”, September 3-8, 2017. Buenos Aires, Argentina.
- 2017 International Scientific Committee, for the International Workshop on, “Open Geographical Modeling and Simulation (IWOGMS)”, August, 17-19, 2017, Nanjing, China.
- 2017 Co-organizer and co-host of “CSDMS annual meeting 2017: Modeling Coupled Earth and Human Systems - The Dynamic Duo”, May 23-25, 2017, Boulder CO.
- 2016 Co-organizer and co-host of “Joint CSDMS-SEN annual meeting 2016: Capturing Climate Change”, May 17-19, 2016, Boulder CO.
- 2016 Co-organizer, co-host and co-chair of World Food Programme - NASA technical work session, August 21-23, Boulder, CO.
- 2015 Co-organizer and co-host of “CSDMS 2015 Annual Meeting: Models meet data, data meet models”, May 26-28, 2015, Boulder CO.
- 2014 Co-organizer and co-host of “CSDMS annual meeting: Uncertainty and Sensitivity in Surface Dynamics Modeling”, May 20-22, 2014, Boulder CO.
- 2013 Co-lead, co-organizer, host of 3-day meeting “An EarthCube Domain Workshop integrating the inland-waters biogeochemistry and fluvial sedimentology communities”, April 24-26, 2013. Boulder CO.

Teaching

- 2003 – Short courses in applying hydrological sediment transport model for numerous CSDMS visiting scientists.
- 1993 – 1994 Head teaching assistant of a group of 40 international forestry students. Aim of the project was to disentangle Dutch agricultural and nature conservation policies.

Journal reviewer (over the last five years)

Nature Geoscience; Science; Geology; Natural Hazards; Estuarine, Coastal and Shelf Science; Anthropocene; The Journal of Geology; AJAR; AWRA; CATENA; Sedimentology; Environmental Modelling & Software; Earth Surface Processes and Landforms; Geomorphology; International Association of Sedimentologists; JGR-Ocean; Hydrological Processes; JGR Earth Surface; Earth Interactions; Quaternary Science Reviews; Advances in Meteorology; Science of the Total Environment; Journal of Sedimentary Research.

Special skills

Computer knowledge: Windows, UNIX, Mac, Microsoft Office, Matlab, Adobe Illustrator/Photoshop, Mediawiki. GIS programs: ArcInfo, ArcGIS, MapInfo, ArcGIS server, GeoServer, ArcPAD, IDRISI, QGIS. Programming languages: Python, C, IDL, HTML, PHP, MySQL and CSS. Familiar and working with OGC standards (WMS, WFS, WCS, etc.).

Languages

Dutch: Mother tongue

English: Reading, writing and speaking excellent.

Other interests

Reading, travelling and sports like speed skating, skiing, climbing, biking, yoga and hiking.

Publication statistics

Peer-reviewed papers*	83
Reports	6
Book chapters	2
Published conference abstracts	199

* Including in progress

Peer-reviewed papers

* = Student first authored paper

2020 (1)

- Elsawah, S., Filatova, T., Jakeman, A.J., Kettner, A.J., Zellner, M.L., Athanasiadis, I.N., Hamilton, S.H., Axtell, R.L., Brown, D.G., Gilligan, J.M., Janssen, M.A., Robinson, D.T., Rozenberg, J., Ullah, I.I.T., and Lade, S.J., 2020. Eight grand challenges in socio-environmental systems modeling. *Socio-Environmental Systems Modelling*, 2, 16226-16226. DOI: 10.18174/sesmo.2020a16226.

2019 (8)

- Cohen, S., Raney, A., Munasinghe, D., Loftis, D., Molthan, A., Bell, J., Rogers, L., Galantowicz, J., Brakenridge, G.R., Kettner, A.J., Huang, Y.-F., and Tsang, Y.-P., 2019. The Floodwater Depth Estimation Tool (FwDET v2.0) for Improved Remote Sensing Analysis of Coastal Flooding. *Nat. Hazards Earth Syst. Sci.*, 19, 2053-2065. DOI: 10.5194/nhess-19-2405-2019.
- Frasson, R.P.deM., Schumann, G.J.-R., Kettner, A.J., Brakenridge, G.R., and Krajewski, W.F., 2019. Will the Surface Water and Ocean Topography (SWOT) mission observe floods? *GRL*. DOI: 10.1029/2019GL084686.
- Gao, J.H., Shi, Y., Sheng, H., Kettner, A.J., Yang, Y., Jia, J.J., Wang, Y.P., Li, J., Chen, Y., Zou, X., and Gao, S., 2019. Rapid response of the Changjiang (Yangtze) River and East China Sea source-to-sink conveying system to human induced catchment perturbations. *Marine Geology*. DOI: 10.1016/j.margeo.2019.05.003.
- Kettner, A.J., Schumann, G. J.-P., and Tellman, B., 2019. The push toward local flood risk assessment at a global scale, *EOS*, **100**, DOI: 10.1029/2019EO113857.
- Liu, X.J., Min, F.Y., and Kettner, A.J., 2019. The impact of large to extreme flood events on floodplain evolution of the middle and lower reaches of the Yangtze River, China. *Catena*, **176**, 394-409. DOI: 10.1016/j.catena.2019.01.027.
- Shen, X., Anagnostou, E.N., Allen, G.H., Brakenridge, G.R., and Kettner, A.J., 2019. Near-real-time non-obstructed flood inundation mapping using synthetic aperture radar. *Remote Sensing of Environment*, **221**, 302-315. DOI: 10.1016/j.rse.2018.11.008.
- Sheng, H., Gao, J.H., Kettner, A.J., Shi, Y., Wang, Y.P., and Chen, Y., 2019. Variations in fluvial discharge of rivers over the last millennium along the eastern coast of the Liaodong Peninsula, China. *Journal of Asian Earth Sciences*, 184. DOI: 10.1016/j.jseaes.2019.103993.

- Zeng, Z., Gan, Y., Kettner, A.J., Yang, Q., Zeng, C., Brakenridge, G.R., and Hong, Y., 2019. Towards high resolution flood monitoring: An integrated methodology using passive microwave brightness temperature and Sentinel synthetic aperture radar imagery. *Journal of Hydrology*. DOI: 10.1016/j.jhydrol.2019.124377.

2018 (8)

- Alfieri, L., Cohen, S., Galantowicz, J., Schuman, G.J-P., Trigg, M.A., Zsoter, E., Prudhomme, C., Kruczkiewicz, A., Coughlan de Perez, E., Flaming, Z., Rudari, R., Wu, H., Adler, R.F., Brakenridge, R.G., Kettner, A.J., Weerts, A., Matgen, P., and Salamon, P., 2018. A global network for operational flood risk reduction. *Environmental Science & Policy*, **84**, 149-158. DOI: 10.1016/j.envsci.2018.03.014.
- Chen, Y., Overeem, I., Kettner, A.J., Gao, S., Syvitski, J.P.M., and Wang, Y., 2018. Quantifying sediment storage on the floodplains outside levees along the lower Yellow River during the years 1580-1849. *Earth Surface Processes and Landforms*. DOI: 10.1002/esp.4519.
- Harvey, J., Gomez-Velez, J., Schmadel, N., Scott, D., Boyer, E., Alexander, R., Eng, K., Golden, H., Kettner, A., Konrad, C., Moore, R., Pizzuto, J., Schwarz, G., Soulsby, C., and Choi, J., 2018. How Hydrologic Connectivity Regulates Water Quality in River Corridors. *Journal of the American Water Resources Association* 1–13. DOI: 10.1111/1752-1688.12691.
- 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. DOI: 10.1002/9781119217886.ch9
- Kettner, A.J., Overeem, I., and Tucker, G., 2018. Can we build useful models of future risk from natural hazards? *EOS*, **99**. DOI: 10.1029/2018EO105239.
- Molliex, S., Kettner, A.J., Laurent, D., Droz, L., Marsset, T., Laraque, A., Rabineau, M., and Moukandi N’Kaya, G.D., 2018. Simulating sediment supply from the Congo watershed over the last 155 ka. *Quaternary Science Reviews*, **203**, 38-55. DOI: 10.1016/j.quascirev.2018.11.001
- Schumann, G.J.P., Brakenridge, G.R., Kettner, A.J., Rashid, K., and Niebuhr, E., 2018. Assisting Flood Disaster Response with Earth Observation Data and Products: A Critical Assessment. *Remote Sensing*, **10**, 1230. DOI: 10.23390/rs10081230.
- Robinson, D.T., Vittorio, A.D., Alexander, P., Arneth, A., Barton, C.M., Brown, D.G., Kettner, A.J., Lemmen, C., O’Neill, B.C., Janssen, M., Pugh, T.A.M., Rabin, S.S., Rounsevell, M., Syvitski, J.P.M., Ullah, I., and Verburg, P.H., 2018. Modelling feedbacks between human and natural processes in the land system. *Earth System Dynamics*, **9**, 895-914. DOI: 10.5194/esd-9-895-2018.

2017 (6)

- 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**, 10369-10377. DOI: 10.1002/2017GL075502.
- Brakenridge, G. R. Syvitski, J.P.M., Niebuhr, E., Overeem, I., Higgins, S.A., Kettner, A.J., Prades, L., 2017. Design with nature: Causation and avoidance of catastrophic flooding, Myanmar. *Earth-Science Reviews*, **165**, 81-109. DOI: 10.1016/j.earscirev.2016.12.009.
- Cohen, S., Brakenridge, G.R., Kettner, A.J., Bates, B., Nelson, J., McDonald, R., Huang, Y-F., Munasinghe, D., and Zhang. 2017. Estimating Floodwater Depths from Flood Inundation Maps and Topography. *Journal of the American Water Resources Association*. DOI: 10.1111/1752-1688.12609.
- Escobar C., R., Restrepo, J.D., Brakenridge, G.R., and Kettner, A.J., 2017. Satellite-based Estimation of Water Discharge and Runoff in the Magdalena River, Northern Andes of Colombia. *Remote Sensing of Hydrological Extremes*, pp. 3-19. DOI: 10.1007/978-3-319-43744-6_1.
- Nienhuis, J.H., Ashton, A.D., Kettner, A.J., and Giosan, L., 2017. Large-scale coastal and fluvial models constrain the late Holocene evolution of the Ebro delta. *Earth Surface Dynamics*, **5**, 585-603. DOI: 10.5194/esurf-5-585-2017.

- Xing, F., Syvitski, J.P.M., Kettner, A.J., Meselhe, E.A., Atkinson, J.H. and Khadka, A.K., 2017. Morphological responses of the Wax Lake Delta, Louisiana, to Hurricanes Rita. *Elem Sci Anth*, 5: 80. DOI: 10.1525/elementa.125.

2016 (2)

- Kettner, A.J., and Syvitski, J.P.M., 2016. Uncertainty and Sensitivity in Surface Dynamics Modeling. *Computers & Geosciences*. DOI: <http://dx.doi.org/10.1016/j.cageo.2016.03.003>
- Van Dijk., A.I.J.M., Brakenridge, G.R., Kettner, A.J., Beck, H.E., and de Groeve, T., 2016. River gauging at global scale using optical and passive microwave remote sensing. *Water Resources Research*, 52, 6404-6418. DOI: 10.1002/2015WR018545

2015 (5)

- Gao, J.H., Jia, J., Kettner, A.J., Xing, F., Wang, Y.P., Li, J., Bai, F., Zou, X., and Gao, S., 2015. Reservoir-induced changes to fluvial fluxes and their downstream impacts on sedimentary processes: The Changjiang (Yangtze) River, China. *Quaternary International*, DOI: <http://dx.doi.org/10.1016/j.quaint.2015.03.015>
- Xu X.N., Gao J., Jia J., Kettner A.J., Xing F., Wang Y., Qi S., Liao F., 2015. The Quantitative Estimation of Sediment Load changes entering Poyang Lake Basin induced by Climate Change and Anthropogenic Impacts. *Geographical Research*, 34(5), 838-850. DOI: 10.11821/dlyj201505004. (IN CHINESE). Original title: 气候变化和人类活动对鄱阳湖流域入湖输沙量影响的定量估算
- Restrepo, J.D., Kettner, A.J., and Syvitski, J.P.M., 2015. Recent deforestation causes rapid increase in river sediment load in the Colombian Andes. *Anthropocene*. doi: 10.1016/j.ancene.2015.09.001
- Gao, J.H., Xu, X.N., Jia, J., Kettner, A.J., Xing, F., Wang, Y.P., Yang, Y., Qi, S., Liao, F., Li, J., Bai, F., Zou, X., and Gao, S., 2015. A numerical investigation of freshwater and sediment discharge variations of Poyang Lake catchment, China over the last 1000 years. *The Holocene*, 25(9), 1470-1482. Doi: 10.1177/0959683615585843
- Chen, Y., Overeem, I., Kettner, A.J., Gao, S., and Syvitski, J.P.M., 2015. Modeling Flood Dynamics along the superelevated Channel belt of the Yellow River over the Last 3,000 years. *Journal of Geophysical Research*, 120, 1321-1351. Doi: 10.1002/2015JF003556

2014 (6)

- Syvitski, J.P.M., Cohen, S., Kettner, A.J., and Brakenridge, G.R., 2014. How important and Different are Tropical Rivers? – An overview. *Geomorphology*, 227, 5-17. DOI: 10.1016/j.geomorph.2014.02.029
- Cohen, S., Kettner, A.J., and Syvitski, J.P.M., 2014. Global Suspended Sediment and Water Discharge Dynamics Between 1960-2010: Continental trends and intra-basin sensitivity. *Global and Planetary Change*, 115, 44-58. DOI: 10.1016/j.gloplacha.2014.01.011
- Gao, J.H., Jia, J., Kettner, A.J., Xing, F., Wang, Y.P., Xu, X.-N., Yang, Y., Zou, X.Q., Gao, S., Qi, S., and Liao, F., 2014. Changes in water and sediment exchange between the Changjiang River and Poyang Lake under natural and anthropogenic conditions, China. *Science of the Total Environment*, 481, 542-553. DOI: 10.1016/j.scitotenv.2014.02.087
- Syvitski, J.P.M., Kettner, A.J., Overeem, I., Giosan, L., Brakenridge, G.R., Hannon, M., and Bilham, R., 2014. Anthropocene metamorphosis of the Indus Delta and lower floodplain. *Anthropocene*, 3, 24-35. DOI: 10.1016/j.ancene.2014.02.003
- Vanmaercke, M., Kettner, A.J., van den Eeckhaut, M., Poesen, J., Govers, G., Mamaliga, A., Verstraeten, G., Radoane, M., and Syvitski, J.P.M., 2014. Moderate seismic activity affects contemporary sediment yields. *Progress in Physical Geography*. DOI: 10.1177/0309133313516160
- * Xing, F., Kettner, A.J., Ashton, A., Giosan, L., Ibanez, C., and Kaplan, J.O., 2014. Fluvial response to climate variations and anthropogenic perturbations for the Ebro River, Spain in the last 4000 years. *Science of The Total Environment*, 473-474, 20-31. DOI: 10.1016/j.scitotenv.2013.11.083.

2013 (3)

- Kettner, A.J., and Syvitski, J.P.M., 2013. Modeling for environmental change, *Computers & Geosciences*, DOI: 10.1016/j.cageo.2012.07.028.

- Upton, P., Kettner, A.J., Gomez, B., Orpin, A.R., Litchfield, N., and Page, M.J., 2013. Simulating post-LGM riverine fluxes to the coastal zone: The Waipaoa catchment, New Zealand. *Computers & Geosciences*, DOI: 10.1016/j.cageo.2012.02.001.
 - Ashton, A.D., Hutton, E.W.H., Kettner, A.J., Xing, F., Kallumadikal, J., Neinhuis, J., and Giosan, L., 2013. Progress in Coupling Coastline and Fluvial Dynamics. *Computers and Geosciences*. DOI: 10.1016/j.cageo.2012.04.004.
- 2012 (5)
- Brakenridge, G.R., Syvitski, J.P.M., Overeem, I., Higgins, S.A., Kettner, A.J., Stewart-Moore, J.A., and Westerhoff, R., 2012. Global Mapping of Storm Surges and the Assessment of Coastal Vulnerability. *Natural Hazards*, DOI 10.1007/s11069-012-0317-z
 - Brakenridge, G.R., S. Cohen, A.J. Kettner, T. De Groeve, S. V. Nghiem, J.P.M. Syvitski, and B.M. Fekete (2012), Calibration of satellite measurements of river discharge using a global hydrology model. *Journal of Hydrology*, **475**, 123-136. DOI: 10.1016/j.jhydrol.2012.09.035
 - Giosan, L., Coolen, M.J.L., Kaplan, J.O., Constantinescu, S., Filip, F., Filipova-Marinova, M., Kettner, A.J., and Thom, N., 2012. Early Anthropogenic Transformation of the Danube-Black Sea System. *Scientific reports* **2**: 582, DOI: 10.1038/srep00582
 - Chen, Y., Syvitski, J.P.M., Gao, S., Overeem, I., and Kettner, A.J., 2012. Socio-economic Impacts on Flooding: a 4000 year History of the Yellow River, China. *AMBIO*, DOI: 10.1007/s13280-012-0290-5
 - Restrepo, J.D., and Kettner, A.J., 2012. Human induced discharge diversion in a tropical delta and its environmental implications: the Patía River, Colombia. *Journal of Hydrology*, **424-425**, 124-142. DOI: 10.1016/j.jhydrol.2011.12.037
- 2011 (5)
- Chen, Y., Overeem, I., Syvitski, J.P.M., Gao, S., and Kettner, A.J., 2011. Controls of levee breaches on the Lower Yellow River during the years 1550-1855. *RCEM Publ.* 617-633.
 - Cohen, S., Kettner, A.J., Syvitski, J.P.M., and Fekete, B.M., 2011. WBMsed: a distributed global-scale daily riverine sediment flux model: model description and validation. *Computers and Geosciences*. Doi:10.1016/j.cageo.2011.08.011
 - Maselli, V., Hutton, E.W., Kettner, A.J., Syvitski, J.P.M., and Trincardi, F. 2011. High-frequency sea level and sediment supply fluctuations during Termination I: an integrated sequence-stratigraphy and modeling approach from the Adriatic Sea (Central Mediterranean). *Marine Geology*, **287**, 54-70. Doi:10.1016/j.margeo.2011.06.012
 - McCarney-Castle, K., Voulgaris, G., Kettner, A.J., and Giosan, L., 2011. Simulating fluvial fluxes in the Danube watershed: The Little Ice Age versus modern day. *The Holocene*, **22**, 91-105. doi: 10.1177/0959683611409778
 - Syvitski, J.P.M., and Kettner, A.J., 2011. Sediment Flux and the Anthropocene. *Philosophical transactions of the Royal Society*, **369**, 957-975, doi: 10.1098/rsta.2010.0329.
- 2010 (2)
- Kettner, A.J. Restrepo, J.D., and Syvitski, J.P.M., 2010. A Spatial Simulation Experiment to Replicate Fluvial Sediment Fluxes within the Magdalena River, Colombia. *The Journal of Geology*, **118**, 363-379, doi:10.1086/652659.
 - McCarney-Castle, K., Voulgaris, G., and Kettner, A.J., 2010. Analysis of fluvial suspended sediment load contribution through Anthropocene history to the South Atlantic Bight coastal zone, U.S.A. *The Journal of Geology*, **118**, 399-416, doi:10.1086/652658.
- 2009 (4)
- Gomez, B., Yantao C., Kettner, A.J., Peacock, D.H., and Syvitski, J.P.M., 2009. Simulating changes to the sediment transport regime of the Waipaoa River for the twenty-first century. *Global and Planetary Change*, doi:10.1016/j.gloplacha.2009.02.002.
 - Kettner, A.J., Gomez, B., Hutton, E.W.H., and Syvitski, J.P.M., 2009. Late Holocene dispersal and accumulation of terrigenous sediment on Poverty Shelf, New Zealand. *Basin Research*, **21**, doi:10.1111/j.1365-2117.2008.00376.x

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 - Syvitski, J.P.M., Kettner, A.J., Overeem, I., Hutton, E.W.H., Hannon, M.T., Brakenridge, G.R., Day, J., Vörösmarty, C., Saito, Y., Giosan, L., and Nicholls R.J., 2009. Sinking Deltas due to Human Activities. *Nature Geoscience*, Vol 2, 681 - 686. doi: 10.1038/ngeo629.
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- **INVITED** Kettner, A.J., 19-24 July 2020. Applying Remote Sensing to support Flood Risk Assessment and Relief Agencies: A Global to Local Approach. International Geoscience and Remote Sensing Symposium, IGARSS, Hawaii.

- Liu, J., Shen, X., Anagnostou, E., Glatanowicz, J., Kettner, A.J., 12–16 January 2020. A physical method of estimating water fraction by combining SMAP, Sentinel-1, and Landsat measurements. AMS annual meeting, Boston.

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- Demuzere, M., Tellman, B., Doyle, C., Ho, J., Azeb, M., Schwarz, B., Sullivan, J., Weber, S., Kuhn, C., and Kettner, A.J., 7-12 April, 2019. From Satellite-based global flood mapping to local end-user support. European Geosciences Union General Assembly (EGU), Vienna, Austria.
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- **INVITED** Kettner, A.J., 19 February 2019. Integrating Global Remote Sensing and Modeling Systems for Local Flood Prediction and Impact Assessment. Earth Observatory Singapore, EOS.
- Kettner, A.J., 29 April, 2019. Changes in flooding in the 21st century. INSTAAR noon seminar, Boulder, Colorado.
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- Schumann, G., Kettner, A.J., October 6-11, 2019. An interoperable decision support system for flood disaster response assistance. Pecora 21 / ISRSE 38, Baltimore, MD, USA.
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 - Kettner, A.J., March 21-22, 2018. Introduction to the Dartmouth Flood Observatory (DFO). Applied tools to monitor water discharge and flooding for South American Rivers. EAFIT University, Medellin, Colombia.
 - Kettner, A.J., July 29-August 2, 2018. Overview of the Community Surface Dynamics Modeling System. Online presentation for the Sixth CUAHSI Biennial Colloquium, the National Conservation Training Center (NCTC) in Shepherdstown, WV, USA.
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- INVITED Kettner, A.J., 28, November, 2017. Measuring Near Real Time River Discharge and Flood Data Worldwide by Utilizing Satellite-based Data. Federal University of Amazonas meeting on Rivers. Manaus, Brazil.
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- INVITED Kettner, A.J., 2017. Hydrological services for Latin America. June 23rd, 2017. GeoSUR online conference.
- Cohen, S., Brakenridge, G.R., Kettner, A.J., Bates, B., Nelson, J., Huang, Y-F., and Zhang, J., 27-29 June, 2017. Methodology for estimating floodwater depths from remote sensing flood inundation maps and topography. Global Flood Partnership annual meeting, Tuscaloosa, Alabama.
- Cohen, S., Kettner, A.J., Brakenridge, G.R., Rasaiyah, B., Dhondia, J., Bates, B., Munasinghe, D., and Misfeldt, 27-29 June, 2017. United States Flood Inundation Map Repository (USFIMR). Global Flood Partnership annual meeting, Tuscaloosa, Alabama.

- Cohen, S., Kettner, A.J., Syvitski, J.P.M., Islam, T., Dunn, F., Carter, S., Mayorga, E., Harrison, J., 18-21st, April, 2017. Predicting anthropogenic and climatic effects on global river fluxes. World's large Rivers, New Delhi, India.
- Kettner, A.J., Overeem, I., Brakenridge, G.R., Syvitski, J.P.M., July 17-21, 2017. Morphological response to flooding in a human controlled fluvial system, the Indus River. 11th International Conference on Fluvial Sedimentology, Calgary, Canada.
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- Molliex, S., Kettner, A.J., Laurent, D., Droz, L., Marsset, T., and Laraque, A., 23-28th April, 2017. Modeling sediment supply of the Congo watershed since the last 23 ka. European Geosciences Union General Assembly 2017, Vienna, Austria.
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- INVITED Kettner, A.J., 30 January – February 1st, 2017. Temporal trends in fluvial sediment supply - a global perspective. Pages-GLOSS conference, Louvain La Neuve, Belgium.
- Schumann, G. J-P., Durand, M., Pavelsky, T., Lion, C., Allen, G., and Kettner, A.J., 23-28 April, 2017. Setting the scene for SWOT: Global maps of river reach hydrodynamic variables. European Geosciences Union General Assembly 2017, Vienna, Austria.

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- Brakenridge, G.R., and Kettner, A.J., 29-1 June, 2016. Daily Prediction of Flood Inundation from Microwave Remote Sensing. Global Flood Partnership conference, Ispra, Italy.
- Kettner, A.J., Cohen, S., Overeem, I., Fekete, B., Brakenridge, G.R., and Syvitski, J.P.M., 17-19 May, 2016. The impact of climate change on riverine flooding, Joint CSDMS – SEN annual meeting, Boulder, CO, USA.
- Kettner, A.J., Brakenridge, G.R., Schumann, G., Andreadis, K., Erickson, T., and Bates, P., 14-16 June, 2016. Global Flood Risk from Advanced Modeling and Remote Sensing in Collaboration with Google Earth Engine. NASA Earth Science Technology Forum, Annapolis, MD, USA.
- Nienhuis, J.H., Ashton, A.D., Kettner, A.J., Edmonds, D.A., Rowland, J.C., and Tornqvist, T.E., 17-19 May 2016. Predicting coastal deltaic change on a global scale. CSDMS annual meeting, Boulder, CO, USA.
- Andreadis, K., Schumann, G., Stampoulis, D., Smith, A., Neal, J., Bates, P., Sampson, C., Brakenridge, R., and Kettner, A.J., 17-22 April 2016. Building a flood climatology and rethinking flood risk at continental scales. EGU 2016 General Assembly, Vienna, Austria.
- Chen, Y., Overeem, I., Gao, S., Syvitski, J.P.M., and Kettner, A.J., 29-2 April 2016. A sediment budget for the lower Yellow River during the years 1580-1849. AAG Annual Meeting. San Francisco, CA, USA.
- Nienhuis, J.H., Ashton, A.D., Kettner, A.J., Edmonds, D.A., and Rowland, J.C., 21-26 February, 2016. Predicting coastal deltaic change on a global scale. Ocean Sciences meeting. New Orleans, Louisiana, USA.
- Syvitski, J.P.M., Kettner, A.J., Overeem, I., Brakenridge, G.R., and Cohen, S., 19-22 June 2016. Latitudinal Controls on Siliciclastic Sediment Production and Transport. AAPG/SEPM 2016 Annual Convention, Calgary, Canada.

- Kettner, A.J., Cohen S, Overeem I, Fekete BM, Brakenridge GR, Syvitski JPM. "A numerical analyzes on how climate change affects riverine flooding." AGU fall meeting (AGU fall meeting, December 12, 2016-December 16, 2016), December 12, 2016
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- Cohen S, Kettner, A.J., Syvitski JPM, Dunn F. "ANALYSIS OF MULTI-DECADAL (1960-2010) DYNAMICS IN SEDIMENT AND WATER DISCHARGES FROM GLOBAL RIVERS: TEMPORAL VARIABILITY AND INTRA-BASIN CONTROLS." Annual Meeting - Geological Society of America (Annual Meeting - Geological Society of America, September 25, 2016-September 28, 2016), September 25, 2016
- Cohen S, Kettner, A.J., Syvitski JPM, Mayorga E, Harrison J. "Predicting Water, Sediment and Nutrient Flux Dynamics to Global Oceans with a Spatially and Temporally Explicit Modeling Framework." 2016 Ocean Sciences Meeting (2016 Ocean Sciences Meeting, February 21, 2016-February 26, 2016), February 21, 2016

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- Kettner, A.J., Syvitski, J.P.M., Overeem, I., and Brakenridge, G.R., 30-3 August-September, 2015. Morphological changes due to flooding: the Indus River. (EXTENDED ABSTRACT 4pg) 9th symposium on River, Coastal and Estuarine Morphodynamics, RCEM, Iquitos, Peru.
- Restrepo, J.D., Kettner, A.J., and Syvitski, J.P.M., 30-3 August-September, 2015. Modeling sediment load at intra-basin scale, the Magdalena River, Colombia: A tool for linking erosion to deforestation rates. (EXTENDED ABSTRACT 3pg) 9th symposium on River, Coastal and Estuarine Morphodynamics, RCEM, Iquitos, Peru.
- Kettner, A.J., Brakenridge, G.R., Borrero, S., De Groeve, T., Slayback, D., Van Praag, E., and Cohen, S., 4-6 May, 2015. Beyond a hazard monitoring system: satellite-based river discharge and surface water extent. Global Flood Partnership conference, Boulder CO, USA.
- Kettner, A.J., 26-28 May, 2015. CSDMS Tools to Promote Visibility of Open-source Model Code. CSDMS 2015 annual meeting: Models meet Data, Data meet Models. Boulder, CO, USA.
- Kettner, A.J., 25-27 March, 2015. Inland Water Processes. EarthCube scope & vision workshop. Berkeley, CA, USA.
- * Xing, F., Syvitski, J.P.M., Kettner, A.J., and Meselhe, E., 26-28 May, 2015. Exploring the impacts of hurricanes and cold fronts on the morphological evolution of the Wax Lake Delta, LA. CSDMS 2015 annual meeting: Models meet Data, Data meet Models. Boulder, CO, USA.
- Overeem, I., Borkowski, L., Kettner, A.J., Russell, B., and Peddicord, H., 26-28 May, 2015. Bringing earth surface processes simulations to large audiences. CSDMS 2015 annual meeting: Models meet Data, Data meet Models. Boulder, CO, USA.
- Carter, S., Cohen, S., and Kettner, A.J., 26-28 May, 2015. Quantifying the Effects of Land Use Dynamics on Global Scale Fluvial Suspended Sediment Flux. CSDMS 2015 annual meeting: Models meet Data, Data meet Models. Boulder, CO, USA.

- Cohen, S., Kettner, A.J., Mayorga, E., and Harrison, J., 26-28 May, 2015. Spatially explicit modeling of particulate nutrient flux in global rivers. CSDMS 2015 annual meeting: Models meet Data, Data meet Models. Boulder, CO, USA.
 - Brakenridge, G.R., and Kettner, A.J., 25-29 May, 2015. River Watch and MODIS NRT for Flood Response and Water Resource Management in Latin America. WGCapD Higher Resolution SRTM Data & Flood Modelling Workshop, Puelba, Mexico.
 - Overeem, I., Kettner, A.J., and Borkowski, L., 14-18 December, 2015. Exposing earth surface process model simulations to a larger audience. AGU, San Francisco, CA, USA.
 - Cohen, S., Kettner, A.J., and Syvitski, J.P.M., 14-18 December, 2015. Global suspended sediment and water discharge dynamics between 1960 and 2010: Continental trends and intra-basin sensitivity. AGU, San Francisco, CA, USA.
 - Brakenridge, G.R., Slayback, D.A., Kettner, A.J., Cohen, S., Syvitski, J.P.M., Overeem, I., de Groeve, T., 14-18 December, 2015. Flood Risk and Climate Change: The Contributions of Remote Sensing. American Geophysical Union AGU, San Francisco, CA, USA.
 - Kettner, A.J., Brakenridge, G.R., van Praag, E., Borrero, S., Young, C.J., Slayback, D.A., Cohen, S., Prades, L., and de Groeve, T., 14-18 December, 2015. On the value of satellite-based river discharge and river flood data. AGU, San Francisco, CA, USA.
 - INVITED: Kettner, A.J., September 8th, 2015. Numerical modeling of Earth Systems during the Anthropocene: A story about fluvial sediments. EAFIT University, Medellin, Colombia.
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- Overeem, I., and Kettner, A.J., 14 October, 2014. Sedimentation patterns in Fluvio-Deltaic systems. Nanjing University, Nanjing, China.
 - Brakenridge, G.R., Kettner, A.J., Praag, E. van, and Groeve, T. de, 7-9 May, 2014. Towards A Global Flood Partnership: GeoSUR/Flood Observatory Collaboration for Flood Alert and Hazard Assessment. 9th Annual Latin American Faculty Summit, Challenges of Computational Hydrology and the Potential Effects on Policy, Microsoft Research (host), Viña del Mar, Chile.
 - Brakenridge, G.R., and Kettner, A.J., 3 October, 2014. Automated Satellite Flood and Wetland Mapping and Measurements. A MundoGEO webinar.
 - Chen, Y., Overeem, I., Kettner, A.J., Gao, S., and Syvitski, J.P.M., 15-19 December, 2014. Modeling Flood Dynamics Along the Super-Elevated Channel Belt of the Yellow River, China, over the Last 3,000 Years. AGU, San Francisco, CA, USA.
 - Cohen, S., Kettner, A.J., Syvitski, J.P.M., and Yamazaki, D., 15-19 December, 2014. Global-scale simulation of river-floodplain water and sediment exchange within a riverine modeling framework. AGU, San Francisco, CA, USA.
 - Cohen, S., Kettner, A.J., Syvitski, J.P.M., April 8-12, 2014. Spatially and Temporally Explicit Prediction of Sediment, Nutrients and Water Discharge in Global Rivers. AAG, Tampa, Florida, USA.
 - Cohen, S., Syvitski, J.P.M., and Kettner, A.J., May 20-22, 2014. On the sensitivity of global suspended sediment modeling to dams. CSDMS 2014 annual meeting, Uncertainty and Sensitivity in Surface Dynamics Modeling, Boulder Colorado, USA.
 - Di Achille, G., Longhitano, S., Ferranti, L., Hutton, E., Kettner, A., and Rossi, A.P., 10-12 September 2014. Quantitative 2D and 3D modeling of a ancient Gilbert-type fan delta in Shalbatana Vallis, Mars: paleoclimatic and paleohydrologic implications. 87th congress of the Italian Geological Society, Milan, Italy.
 - Gao, J.-H., Jia, J., Kettner, A.J., and Xing, F., May 20-22, 2014. Changes in water and sediment exchange between the Changjiang River and Poyang Lake under natural and anthropogenic conditions, China. CSDMS 2014 annual meeting, Uncertainty and Sensitivity in Surface Dynamics Modeling, Boulder Colorado, USA.
 - Hutton, E.W.H., Piper, M.D., Peckham, S.D., Overeem, I., Kettner, A.J., Syvitski, J.P.M., 16 November 2014. Building Sustainable Software - The CSDMS Approach. 2nd Workshop on

- Sustainable Software for Science: Practice and Experiences (WSSSPE2). New Orleans, LA, USA. (EXTENDED ABSTRACT 6PAGES)
- INVITED: Kettner, A.J., Brakenridge, G.R., Praag, E. van, Groeve, T. de, Slayback, D., Cohen, S., 15-19 December, 2014. Dissemination of satellite-based river discharge and flood data. AGU, San Francisco, CA, USA.
 - Mayorga, E., Cohen, S., Kettner, A.J., Harrison, J.A., Syvitski, J.M.P., May, 2014. 50-Year trends in sediments and particulate nutrients and carbon in large rivers: a model-based analysis. Joint Aquatic Sciences Meeting, Portland, USA.
 - Overeem, I., Higgins, S.A., Syvitski, J.P.M., Kettner, A.J., and Brakenridge, G.R., 15-19 December, 2014. The Impacts of Armoring our Deltas: mapping and modeling large-scale deltaplain aggradation. AGU, San Francisco, CA, USA.
 - Syvitski, J.P.M., Hutton, E.W.H., Piper, M., Peckham, S.D., Kettner, A.J., June, 15-19, 2014. Plug and Play Component Modeling — The CSDMS2.0 Approach. IEMSS, San-Diego, CA, USA. (EXTENDED ABSTRACT 6PAGES)
 - * Xing, F., Kettner, A.J., Syvitski, J.P.M., and Atkinson, J., May 20-22, 2014. Hydrodynamics and morphological changes of the Wax Lake Delta (WLD) during hurricane Rita, 2005. CSDMS 2014 annual meeting, Uncertainty and Sensitivity in Surface Dynamics Modeling, Boulder Colorado, USA.
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- Ashton, A.D., Nienhuis, J., Ortiz, A.C., Trueba, J.L., Giosan, L., Kettner, A.J., Xing, F., December, 9-13th, 2013. Effects of marine reworking and sea-level rise on deltas of the 21st century, AGU, San Francisco, CA, USA.
 - Backus, L., Giordanengo, J., Sacatoro, I., Kettner, A.J., Koch, M., Walsh, J., Fried, L., December, 9-13th, 2013. Cloud forest restoration for erosion control in a Kichwa community of the Ecuadorian central Andes Mountains, AGU, San Francisco, CA, USA.
 - Cohen, S., Kettner, A.J., Syvitski, J.P.M., April 14-17, 2013. Human and climate impact on global riverine water and sediment fluxes - a distributed analysis. American Geophysical Union (AGU Meeting of the Americas), Cancun, Mexico.
 - INVITED: Kettner, A.J., August 28-30th, 2013. Advances in simulating fluvial sediment transport at basin-scale. Stratodynamics, Nagasaki, Japan.
 - * Xing, F., Kettner, A.J., Syvitski, J.P.M., June, 2013. Exploring the roles of tides, wind, waves, vegetation and roots on deltaic hydrodynamics and morphology during Hurricane Rita. Workshop Delta Dynamics Collaboratory, New Orleans, LA, USA
 - Cohen, S., Kettner, A.J., Syvitski, J.P.M., December, 9-13th, 2013. Anthropogenic effects on global riverine sediment and water discharge - a spatially explicit analysis, AGU, San Francisco, CA, USA.
 - Syvitski, J.P.M., Cohen, S., Kettner, A.J., Brakenridge, G.R., December, 9-13th, 2013. New Possibilities in Global Hydrology and Sediment Transport, AGU, San Francisco, CA, USA.
 - * Xing, F., Kettner, A.J., Syvitski, J.P.M., Ye, Q., Atkinson, J., Bevington, A., Twilley, R., December, 9-13th, 2013. Impact of vegetation on the hydrodynamics and morphological changes of the Wax Lake Delta during hurricanes, AGU, San Francisco, CA, USA.
 - Slayback, D., Policelli, F.S., Brakenridge, G.R., Tokay, M.M., Smith, M.M., Kettner, A.J., December 9-13th, 2013. Global, Daily, Near Real-Time Satellite-based Flood Monitoring and Product Dissemination, AGU, San Francisco, CA, USA.
 - Kettner, A.J., Syvitski, J.P.M., Overeem, I., Brakenridge, G.R., December 9-13th, 2013. Fluvial geomorphological changes of the Indus River due to human failure, AGU, San Francisco, CA, USA.
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- Cohen, S., Brakenridge, G.R., Kettner, A.J., Syvitski, J.P.M., Fekete, B.Z., and de Groeve, T., Feb., 19-22, 2012. Calibration of Orbital Microwave Measurements of River Discharge Using a Global Hydrology Model. American Geophysical Union (AGU) chapman, Kona, Hawaii, USA.

- Cohen, S., Kettner, A.J., and Syvitski, J.P.M., December 17-21, 2012. Spatio-temporal dynamics in riverine sediment and water discharge between 1960-2010 based on the WBMsed v.2.0 Distributed Global Model. *Frontiers in Computational Physics conference*, Boulder, CO, USA.
 - Cohen, S., Kettner, A.J., Syvitski, J.P.M., December, 3-7, 2012. A distributed analysis of Humans impact on global sediment dynamics. *AGU*, San Francisco, CA, USA.
 - Di Achille, G., Hoke, M.R.T., Rossi, A.P., Hynek, B.M., Esposito, F., Hutton, E.W.H., and Kettner, A.J., March, 19-23, 2012. Process-response sedimentary modeling of ancient martian Deltas 1: Introduction and case studies. *43rd Lunar and Planetary Science Conference*, LPSC, The Woodlands, Texas, USA.
 - Giosan, L., Coolen, M.J.L., Kaplan, J.O., Constantinescu, S., Filip, F., Filipova-Marinova, M., Kettner, A.J., Thom, N., December, 3-7. Early Anthropogenic Transformation of the Danube-Black Sea System. *AGU*. San Francisco, CA, USA.
 - Hartmann, J., Moosdorf, N., Lauerwald, R., West, A.J., Cohen, S., and Kettner, A.J., August, 2012. A global view on chemical weathering considering supply limitation and soil shielding. *34th International Geological Congress*, IGC, Brisbane Australia.
 - Hartmann, J., Moosdorf, N., Lauerwald, R., West, A.J., Cohen, S., and Kettner, A.J., June, 2012. Steps towards a global chemical weathering model framework: The role of supply limitation. *Goldschmidt*, Montreal Canada.
 - 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. San Francisco, CA, USA.
 - Overeem, I., Syvitski, J.P.M., and Kettner, A.J., 2012. Modeling Fluvial Floodplain Deposits (AAPG), Long Beach, CA, USA.
 - Overeem, I., Hutton, E.W.H., Kettner, A.J., Peckham, S., Syvitski, J.P.M., December, 3-7, 2012. The Community Surface Dynamics Modeling System: Experiences on Building a Collaborative Modeling Platform. San Francisco, CA, USA.
 - Overeem, I., Boyd, R., Kettner, A.J., Syvitski, J.P.M., December 3-7, 2012. Modeling Floodplain Depositional Patterns under Variable Flood Regimes. San Francisco, CA, USA.
 - Syvitski, J.P.M., Hutton, E.W.H., Peckham, S.D., Overeem, I., and Kettner, A.J., December, 3-7. CSDMS2.0: Computational Infrastructure for Community Surface Dynamics Modeling. *AGU*, San Francisco, CA, USA.
 - Upton, P., Vandergoes, M., Stumpner, P., Levy, R., Roop, H., Fitzsimmons, S., Howarth, J., Gorman, A., Dunbar, G., Kettner, A.J., December, 3-7. Using numerical models to place constraints on fluvial input into glacial lakes, Southern Alps, New Zealand. *AGU*, San Francisco, CA, USA.
 - Vanmaercke, M., Kettner, A., Van Den Eeckhaut, M., Poesen, J., Govers, G., Mamaliga, A., Verstraeten, G., Radoane, M., and Syvitski, J., April, 22-27, 2012. Predicting sediment yield for catchments under pristine conditions: the role of tectonic activity. *EGU*, Vienna, Austria.
 - Vanmaercke, M., Poesen, J., Govers, G., Verstraeten, G., Kettner, A., and Van Den Eeckhaut, M., April, 22-27, 2012. Quantifying the effects of human impact on sediment yield for European catchments. *EGU*, Vienna, Austria.
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- Ashton, A., Giosan, L., Kettner, A.J., Hutton, E.H.W., and Ibanez, C., April 2011. Influence of wave angle distribution and sediment supply variation on plan-view delta morphology: application to the Ebro Delta, Spain. *EGU*, Vienna, Austria.
 - Ashton, A., Giosan, L., Nienhuis, J., Kettner, A., Ibanez, C., and Murray, B., June, 2011. Influence of wave angle distribution and sediment supply variation on plan-view delta morphology: application to the Ebro. *Impacts of Global Change on Deltas, Estuaries & Coastal Lagoons*. Sant Carles de la Rapita, Spain.

- Brakenridge, G.R., Kettner, A.J., Syvitski, J.P.M., Policelli, F., de Groeve, T., and Nghim, S.V., August 2011. Predicting and Managing the effects of extreme floods using orbital remote sensing. International Geoscience and Remote Sensing Symposium (IGARSS), Sendai, Japan.
- Cohen, S., Kettner, A.J., and Syvitski, J.P.M., Oct., 28-30, 2011. Improved water discharge predictions in WBMsed, a Global riverine Sediment Flux model. CSDMS annual meeting, Boulder, CO, USA.
- Cohen, S., Kettner, A.J., Syvitski, J.P.M., Fekete, B., Dec. 5-9, 2011. Global riverine sediment flux predictions, the WBMsed v2.0 model. American Geophysical Union (AGU), San Francisco, California, USA.
- Darnenova, K., Carbonari, K., Kettner, A.J., Apling, D., and Higgins, G.J., Dec. 5-9, 2011. Assessment of Freshwater Availability in the Southwestern US under Changing Climate. American Geophysical Union (AGU), San Francisco, California, USA.
- * Hannon, M.T., Kettner, A.J., Syvitski, J.P.M., and Overeem, I., March 2011. Longitudinal profiles, Neotectonics, and Potential Bedload Transport. Hydrological Science symposium, Boulder CO., USA.
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- Kettner, A.J., Overeem, I., Cohen, S., and Syvitski, J.P.M., Dec. 5-9, 2011. Downscaling discharge variability: how well can daily flow characteristics be predicted based on lower resolution flow data? American Geophysical Union (AGU), San Francisco, California, USA.
- Overeem, I., Syvitski, J., Kettner, A.J., Hutton, E., and Brakenridge, B., March 2011. Sinking Deltas due to Human Activities, Invited talk for Tulsa Geological Society. In: AAPG Search and Discovery #70094.
- Syvitski, J.P.M., Kettner, A.J., and Brakenridge, G.R., Dec. 5-9, 2011. Global Overview On Delivery Of Sediment To The Coast From Tropical River Basins. American Geophysical Union (AGU), San Francisco, California, USA.
- Upton, P., Litchfield, N., Orpin, A., Kettner, A., Hicks, M., Vandergoes, M., January 2011. Modelling Source-to-Sink systems in New Zealand: The Waipaoa and Waitaki catchments. AGU Chapman Conference on Source to Sink Systems Around the World and Through Time, Oxnard, CA, USA.
- Vanmaercke, M., Kettner, A.J., Van Den Eeckhaut, M., Poesen, J., Govers, G., Mamaliga, A., Verstraeten, G., and Radoane, M., Oct., 28-30, 2011. Predicting sediment yields from undisturbed catchments: the dominant role of tectonics. CSDMS annual meeting, Boulder, Colorado, USA.
- Wickert, A.D., Anderson, R.S., Mitrovica, J.X., Kettner, A.J., and Lee, C.M., Dec. 5-9, 2011. Dynamic Drainage Networks and Discharge Histories in North America over the Last Glacial Cycle: Implications for Geomorphic Change and Early Human Settlement Patterns. American Geophysical Union (AGU), San Francisco, California, USA.
- * Xing, F., Kettner, A.J., October 2011. Exploring river - wave dominated delta evolution applying a model-coupling approach. Boulder, CO, USA.
- * Xing, F., Kettner, A.J., and Hannon, M.T., March 2011. Impact of Climate change and Human interference on the evolution of the Ebro Delta, Spain in the last 2000 years. Hydrological Science symposium, Boulder CO., USA.
- * Xing, F., Kettner, A.J., Ashton, A., Hutton, E., and Syvitski, J.P.M., Dec., 5-9, 2011. Exploring river – wave dominated delta evolution applying a model-coupling approach. American Geophysical Union (AGU), San Francisco, California, USA.
- * Xing, F., Kettner, A.J., Ashton, A., Giosan, L., Hannon, M., and Ibanez, C., Aug., 10-19, 2011. Impact of Climate changes and Human effect on the evolution of Ebro Delta, Spain in the last 2000

years. NCED summer school (Summer Institute on Earth-surface Dynamics), Minneapolis, Minnesota, USA.

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- Ashton, A., Hutton, E.W.H., Kettner, A.J., Jerolmack, D., and Giosan, L. October 2010. Coupling between coastline and fluvial dynamics. CSDMS conference, Modeling for Environmental change, San Antonio, Texas.
- Brakenridge, G.R., Kettner, A.J., Nghiem, S.V., de Groeve, T., Syvitski, J.P.M., December 2010. Effects of Fluvial Morphology On Orbital Remote Sensing Measurements of River Discharge. AGU fall meeting, San Francisco, USA.
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- Kettner, A.J., Hannon, M.T., and Syvitski, J.P.M., June 2010. Simulating hourly discharge fluxes through the Niger delta. Western Pacific Geophysics Meeting, Taipei, Taiwan.
- Kettner, A.J., Overeem, I., and Syvitski, J.P.M., June 2010. Determining the variability of daily water discharge based on characteristics of annual streamflows. Western Pacific Geophysics Meeting, Taipei, Taiwan.
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- Syvitski, J.P.M., Brakenridge, G.R., Kettner, A.J., Overeem, I., September 2010. Storm Surge Flooding of Deltas Made Susceptible by Human Activities. Storm Surges Congress, Hamburg, Germany.
- Syvitski, J.P.M., Brakenridge, G.R., Kettner, A.J., September 2010. Divergent Flow of Water and Sediment in Lowland Coastal Settings. 18th International Sedimentological Congress, Mendoza, Argentina.
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- Upton, P., Orpin, A., Litchfield, N., Kettner, A.J., Hicks, M., Vandergoes, M., October 2010. Modelling suspended sediment loads: Insight into the past and future of the Waipaoa catchment, North Island, New Zealand. CSDMS conference, Modeling for Environmental change, San Antonio, Texas.

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- INVITED: Kettner, A.J., Gomez, B., Cui, Y., Syvitski, J.P.M., December 2009. Simulated fluvial flux changes for the Waipaoa River as a response to climate change in the 21st Century. AGU fall meeting, San Francisco, USA.
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- Milliman, J.D., and Kettner, A.J., June 2009. Recent Trends in Fluvial Discharge of Water and Sediment to the Black Sea CIESM International Workshop, Trabzon, Turkey.
- Syvitski, JPM, E.W.H. Hutton, I. Overeem, A.J. Kettner, and S.Peckham, June 2009. An Overview of Source to Sink Numerical Modeling Approaches & Applications. AAPG, Denver, USA.
- Kettner, A.J., Syvitski, J.P.M., and Gomez, B., April 2009. Coupling models to investigate the dispersal and accumulation of fluvial sediment delivered by the Waipaoa River, to Poverty Shelf, New Zealand over a 3000year period. Source S2S Integration and Synthesis Workshop Gisborne, New Zealand

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- Brommer, M.B., Weltje, G.J., Kettner, A.J., Trincardi, F., April 2008. Source-to-sink analysis of the Northern Adriatic Basin over the past 19.000 years: data-model comparison using a mass balance approach. EGU meeting, Vienna, Austria.
- Kettner, A.J., Syvitski, J.P.M., Restrepo, J.D., December 2008. Simulating Spatial Variability of Fluvial Sediment Fluxes Within the Magdalena Drainage Basin, Colombia. AGU fall meeting, San Francisco, USA.
- * Hannon, M.T., Syvitski, J.P.M., Kettner, A.J., December 2008. Hydrologic modeling of a tropical river delta by applying remote sensing data: The Niger Delta and its distributaries. AGU fall meeting, San Francisco, USA.
- Kettner, A.J., Gomez, B., and Syvitski, J.P.M., December 2008. Human catalysts or climate change: which will have a greater impact on the sediment load of the Waipaoa River in the 21st century? ICCE Symposium, NZ.
- Syvitski, J.P.M., and Kettner, A.J., December 2008. Scaling Sediment Flux across Landscapes. ICCE Symposium, NZ.
- Overeem, I., Syvitski, J.P.M., and Kettner, A.J., March 2008. Are Arctic Rivers Unique And Are They Changing? 38th Arctic Workshop, Boulder, CO, USA.

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- Kettner, A.J., and Syvitski, J.P.M., December 10th – 14th, 2007. Fluvial responses to environmental perturbations since the Last Glacial Maximum. AGU fall meeting, San Francisco, USA.
- Overeem, I., Briner, J.P., Kettner, A.J., and Syvitski, J.P.M., December 10th - 14th, 2007. River Response to Deglaciation: a Case-Study of Clyde Fjordhead, Baffin Island, Arctic Canada. AGU fall meeting, San Francisco, USA.
- Hutton, E.W., Kettner, A.J., Kubo, Y., Gomez, B., and Syvitski, J.P.M., December 10th – 14th, 2007. TI: Simulating the effects of hyperpycnal events on the stratigraphy of Poverty Shelf, New Zealand. AGU fall meeting, San Francisco, USA.
- Syvitski, J.P.M., Hannon, M., Kettner, A.J., Jenkins, C., and Hutton, E.W.H., December 10th – 14th, 2007. Morphodynamics of River Lowlands and Deltas: Combining Historical Maps with Satellite Data. AGU fall meeting, San Francisco, USA.

- Milliman, J., Syvitski, J.P.M., Kettner, A.J., Ludwig, W., April 9th – 13th, 2007. Water and Sediment Delivery from Mediterranean Rivers: Regional, Global and Temporal Perspectives. 38th CIESM Congress, Istanbul, Turkey.
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