

# CURRICULUM VITAE

## Liviu Giosan

*Geoscientist*

Associate Scientist w/ Tenure  
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### Education

2001	Ph.D. Marine and Atmospheric Sciences <i>Advisors: Roger Flood &amp; Henry Bokuniewicz</i>	SUNY Stony Brook
1995	M.S. Marine Environmental Sciences <i>Advisor: Henry Bokuniewicz</i>	SUNY Stony Brook
1993	Diploma Geological Engineering	University of Bucharest

### Professional Experience

2013-	Associate Scientist w/ Tenure	WHOI
2007-2013	Associate Scientist	WHOI
2003-2007	Assistant Scientist	WHOI
2003	Postdoctoral Investigator	WHOI
2001-2003	CICOR Postdoctoral Scholar <i>Sponsors: Lloyd Keigwin &amp; Bill Curry</i>	WHOI

### Research Interests

Human-climate-landscape interactions: *Role of natural phenomena on development and collapse of civilizations based on reconstructions from marine/continental deposits*

Morphodynamics and Sedimentation: *Rivers, deltas and supply-dominated coasts*

Paleoceanography/Paleoclimatology: *Sources, transport, transformations, and climatic significance of clastic sediments in marine, fluvial, and other aquatic environments*

### Professional Societies

American Geophysical Union; Geological Society of America; European Geosciences Union

### Boards and Committees

US Advisory Committee for Scientific Ocean Drilling

Board of Mississippi Delta Expert Panel on Diversions Planning and Implementation

## Honors

2016-2018	Visiting Professor, University of Bucharest, Romania
2006-2007	Honorary Research Fellow, University of Aberdeen
2001	CICOR Postdoctoral Scholar, WHOI
1993	NAFSA Baltic and East European Program Award

## Shipboard and Field Experience

2016 - 2018	Chief Scientist, Myanmar (Burma)
2016	Geophysicist, Discovery Bay, Jamaica
2014	Stratigraphic Correlator, IODP Leg 353, Bay of Bengal
2013	Physical properties specialist, IODP Leg 346, Sea of Japan
2012	Co-lead Scientist, Yukon delta
2010 - 2012	Co-lead Scientist, Ebro delta
2008 - 2010	Co-lead Scientist, Mackenzie delta
2007 - 2009	Co-lead Scientist, Indus shelf ( <i>R/V Pelagia</i> )
2007	Oil Industry Consultant, Indian Ocean
2006	Chief Scientist, Black Sea infilled estuaries
2006	Sedimentologist, India National Gas Hydrate Drilling (NGHP01) Expedition
2004 - 2009	Co-chief Scientist, Indus delta
2004	Co-chief Scientist, Panama Basin ( <i>R/V Knorr 176</i> )
2003 - 2011	Chief Scientist, Danube delta
2002	Lead investigator, New England continental slope ( <i>R/V Oceanus</i> )
2002	Physical properties specialist, ODP Leg 202, SE Pacific
1998	Physical properties specialist, ODP Leg 172, N Atlantic

## Professional Activities

### Synergistics

#### Community Proposals

2017	working group member for NASA suborbital mission proposal writing on deltas
2012-2013	co-led IODP proposal resulting in Expedition 353 (Bay of Bengal) and led APL proposal resulting in Expedition 359 (Arabian Sea)

#### Outreach and Communication

- Co-author of white paper on “*From the Mountains to the Sea: Interdisciplinary Science and Applications Driven by the Flow of Water, Sediment, and Carbon*” for NASA’s Decad. Surv. Earth Sci. Appl. from Space, 2015
- Co-author of white paper on “*Answering 10 Fundamental Questions about the Mississippi Delta*” for National Audubon Society, the Environmental Defense Fund, and the National Wildlife Federation, 2012
- Co-author of white paper on “*Dynamics and Vulnerability of Deltas*” for Land-Ocean Interactions in the Coastal Zone (LOICZ) Core Project of the International Geosphere-Biosphere Programme (IGBP) and the International Human Dimensions Programme on Global Environmental Change (IHDP), 2009.

Publications on the the Indus, Black Sea, and the Danube highlighted in print/online in *Science*, *Nature*, *National Geographic*, *Discovery*, *NY Times*, *LA Times*, *Yahoo News*, *Google News*, *Voice of America*, *Canadian Public Radio*, media in France, Greece, India, Japan, Romania, UK.

#### Editorship and Reviews

- 2013- Editorial Board member for *Frontiers in Earth Sciences*
- 2013- Editorial Board member for *Anthropocene*
- 2012 Lead editor, AGU monograph on “Climate, Landscapes and Civilizations”
- 2005 Lead editor, SEPM book on “River Deltas: Concepts, Models, Case Studies”
- 1998 - Reviewer and panelist: National Science Foundation, NERC-UK, Israel Science Foundation, Dutch Science Foundation, NSERC-Canada, French and Romanian funding agencies
- 1998 - Reviewer: *Nature*, *Scientific Reports*; *Geology*; *Geophysical Research Letters*; *Journal of Geophysical*; *GSA Bulletin*; *Quaternary Science Reviews*; *Earth Planetary Science Letters*; *Earth Surface Processes and Landforms*; *Marine Geology*; *Geomorphology*; *Sedimentary Geology*; *Basin Research*; *Journal of Sedimentary Research*; *Deep Sea Research*; *Estuarine, Coastal and Shelf Science*; *Estuaries and Coasts*; *Quaternary Research*; *Marine Geophysical Researches*; *Marine Pollution Bulletin*; (I)ODP publications

#### Invited Conference Speaker

- Myanmar Earth Sciences Association Inaugural Conference (Nov 2017): Keynote Speaker
- AGU Fall Meeting Session on Mississippi delta (Dec 2017): Invited Speaker
- EGU Meeting Vienna (2016): *Sustainable management of river deltas under pressure*
- AGU Fall Meeting Session on deltas (2014): *Deltas maintenance and reconstruction*
- AGU Fall Meeting Session on fluvial fluxes (2013): *Black Sea Anthropocene*
- 7<sup>th</sup> International Conference on Asian Marine Geology, Goa, India (2011): Keynote: *Aridification of India during Holocene.*
- DeltaNet Conference on the Impacts of Global Change on Deltas, Estuaries & Coastal Lagoons, Romania, 2011: *A new look at the history of Danube delta*
- DeltaNet Conference on the Impacts of Global Change on Deltas, Estuaries & Coastal Lagoons, Spain, 2011: *Are deltas human constructs?*
- 18th International Sedimentological Congress, Argentina (2010): *Impacts on Old World deltas.*
- AGU Fall Meeting Session on deltas (2009): *The Great Diversion: Danube delta in Anthropocene*
- Estuarine Research Federation Annual Meeting (2009): *Danube delta under human control.*
- Estuarine Research Federation Annual Meeting (2007): *Role of Abrupt Climate Change in River Delta Development*
- Ocean Sciences Meeting (2008): *Danube delta: a biosphere reserve at risk.*
- IGCP Conference on Asian Deltas, Vietnam (2005): *Development of the Indus Mega-Delta*
- American Association of Petroleum Geologists Meeting, Dallas (2004): *Large-scale morphodynamics of deltas*

### **Organizer/Convener/Chair/Invited**

EGU Meeting Vienna (2017, 2018): *Sustainable management of river deltas under pressure*  
EGU Annual Meeting session on “Black Sea Evolution: Progress and Opportunities”, 2016  
International IGCP Geoscience Program 581 “Evolution of Asian River Systems”, 2009-2013  
AGU Fall Meeting session on Monsoon and Past Civilization, 2012  
IODP Building US Strategies, Denver, 2012  
AGU Chapman Conference on Climates, Past Landscapes, and Civilizations, 2011  
Scientific Drilling in the Indian Ocean, Goa, 2011  
EGU Annual Meeting session on Coasts, Estuaries and Deltas, 2011  
Deltas2010 – Wetland Foundation Conference, Washington, DC. 2010  
AGU Fall Meeting session on Response of Sedimentary Systems to Rapid Climate and Sea Level Changes and its Impacts on Humans, 2009  
INVEST, IODP Conference, Bremen, 2009  
AGU Chapman Conference on Physics of Wave-Mud Interaction, 2008  
Thematic Session on “Tideless Coasts: Sediment Processes and Engineering” at Coastal Sediments '07, ASCE, New Orleans, April 2007  
JOI workshop on Black Sea drilling, 2003  
AGU Fall Meeting session on “Effects of Sediment Dynamics on Marine Paleorecords, 2003  
GSA Annual Meeting Topical Session “Deltas: Old and New”, 2002  
Conference on U.S. Participation (CUSP) in IODP, Washington, D.C., 2002  
RIOMAR (River-dominated Ocean Margins) workshop, New Orleans, 2001

### **Invited talks**

Cambridge, Caltech, JPL, MIT, Harvard, Lamont-Doherty Earth Observatory, University of Arizona, Rutgers, University of South Carolina, University of Chicago, University of New Mexico, Binghamton University, Cambridge (UK), Southampton University (UK), Tokyo University, universities in India, Pakistan, Germany, China, and Romania.

### **Education**

Undergraduate: 10 summer and guest undergraduate students since 2006.

Doctoral Advisor/Committee: Camilo Ponton, PhD, 2012 (postdoc Caltech)  
Jaap Nienhuis, PhD 2015 (postdoc Tulane)

Postdoctoral Mentor: Nitesh Khonde, 2017  
Ning Zhao, 2017-  
Ann Dunlea, 2016-  
Sam Munoz, 2015-2017 (Northeastern University)  
Guillaume Soulet, 2013-2015 (University Durham, UK)  
Nalaka Ranashinghe, 2011-2012 (Paradenya University, Sri Lanka)  
Andrew Ashton, 2005-2007 (Associate Scientist, WHOI)

## Courses:

12.710 MIT/WHOI Joint Program: Introduction to Marine Geology & Geophysics (yearly)

2014 MIT/WHOI Joint Program: Marine Geodynamics - ANTHROPOCENE

2011 MIT/WHOI Joint Program: Marine Geodynamics – RIVERS

## Books

**Giosan, L.**, Fuller, D., Nicoll, K., Rowan, F., Clift, P., (Eds.), 2012, Climate, landscapes and civilizations, American Geophysical Union Monograph, Vol. 198, 226 p.

**Giosan, L.** and Bhattacharya, J., (Eds.), 2005, River Deltas: Concepts, Models, Case Studies, SEPM Special Publication, 83, 520 p.

## Publications (\* - student, postdoc led)

1. \*Orsi, W.D., Coolen, M.J., Wuchter, C., He, L., More, K.D., Irigoien, X., Chust, G., Johnson, C., Hemingway, J.D., Lee, M., Galy, V., **Giosan L.**, 2017. Climate oscillations reflected within the microbiome of Arabian Sea sediments. *Scientific Reports*, 7.
2. Constantinescu, Ş. and **Giosan, L.**, 2017. Marginal deltaic coasts in transition: From natural to anthropogenic along the southern Romanian cliffed coast. *Anthropocene*.
3. \*Khonde, N., Singh, S.K., Maurya, D.M., Rai, V.K., Chamyal, L.S. and **Giosan L.**, 2017. Tracing the Vedic Saraswati River in the Great Rann of Kachchh. *Scientific Reports*, 7.
4. \*Freymond, C.V., Peterse, F., Fischer, L.V., Filip, F., **Giosan, L.** and Eglinton, T.I., 2017. Branched GDGT signals in fluvial sediments of the Danube River basin: Method comparison and longitudinal evolution. *Organic Geochemistry*, 103, pp. 88-96.
5. \*Nienhuis, J.H., Ashton, A., Kettner, A., **Giosan, L.**, 2017, Large-scale coastal and fluvial models constrain the late Holocene evolution of the Ebro Delta, *Earth Surface Dynamics*, 5, 1–19, 2017
6. \*Bolton, C.T., Hernández-Sánchez, M.T., Fuertes, M.-A., González-Lemos, S., Abrevaya, L., Mendez-Vicente, A., Flores, J.-A., Probert, I., **Giosan L.**, Johnson, J., Stoll, H.M., 2016, Decrease in coccolithophore calcification and CO<sub>2</sub> since the middle Miocene, *Nature Communications*, 7: 10284.
7. \*Nienhuis, J.H., Ashton, **Giosan, L.**, 2016, Littoral steering of deltaic channels, *Earth and Planetary Science Letters*, 453; 204–214.
8. \*Vonk, J.E., Dickens, A.F., **Giosan, L.**, Hussain, Z.A., Kim, B., Zipper, S.C., Holmes, R.M., Montlucon, D.B., Galy, V., Eglinton, T.I., 2016. Arctic deltaic lake sediments as recorders of fluvial organic matter deposition, *Frontiers in Earth Science*, 4, 77.
9. Clift, P.D., **Giosan, L.**, East, A.E., 2016, Comment on “Geochemistry of buried river sediments from Ghaggar Plains, NW India: Multi-proxy records of variations in provenance, paleoclimate, and paleovegetation patterns in the late Quaternary” by Ajit Singh et al., *Palaeogeography, Palaeoclimatology, Palaeoecology*, 455: 65-67.
10. Clemens, S.C., Kuhnt, W., LeVay, L.J., and the Expedition 353 Scientists (including **L. Giosan**), 2016. *Indian Monsoon Rainfall. Proceedings Int. Ocean Discovery Program, 353*: College Station, TX (International Ocean Disc. Progr.), dx.doi.org/10.14379/iodp.proc.353, 2016.

11. Kemp, P., Day, J.W., Rogers, J.D., **Giosan, L.**, Peyronnin, N., Enhancing mud supply from the Lower Missouri River to the Mississippi River Delta USA: Dam bypassing and coastal restoration, *Estuarine, Coastal and Shelf Science*, 2016.
12. Day, J.W., Agboola, J., Chen, Z., D'Elia, C., Forbes, D.L., **Giosan, L.**, Kemp, P., Kuenzer, C., Lane, R.R., Ramachandran, R., Syvitski, J., Yañez-Arancibia, A., approaches to defining deltaic sustainability in the 21st century, *Estuarine, Coastal and Shelf Science*, 2016.
13. Filipova-Marinova, M., Pavlov, D., **Giosan, L.**, 2016 Multi-proxy records of Holocene palaeoenvironmental changes in the Varna Lake area, western Black Sea coast, *Quaternary International*, 401, 99-108.
14. \*Nienhuis, J.H., Ashton, A.D., Nardin, W., Fagherazzi, S., **Giosan, L.**, 2016, Alongshore sediment bypassing as a control on river mouth morphodynamics, *Journal of Geophysical Research - Earth Surface*, 121: 664-683.
15. Cearreta, A., Benito, X., Ibáñez, C., Trobajo, **Giosan, L.**, 2016, Holocene palaeoenvironmental evolution of the Ebro Delta (Western Mediterranean Sea): Evidence for an early construction based on the benthic foraminiferal record, *Holocene*, 26: 1438-1456.
16. \*Nienhuis, J.H., Ashton, A.D., **Giosan, L.**, 2015, What makes a delta wave-dominated? *Geology*, 43: 511-514.
17. Tada, R., Murray, R.W., Alvarez Zarikian, C.A., and the Expedition 346 Scientists (including **L. Giosan**), 2015. *Asian Monsoon, Proc. IODP, 346*: College Station, TX (Integrated Ocean Drill Progr.), doi:10.2204/iodp.proc.346.2015
18. \*Nienhuis, J.H., Ashton, A.D., Nardin, W., Fagherazzi, S., **Giosan, L.** (2015), Breaking-wave driven sediment bypassing of river mouths: mechanisms and effects on delta evolution, in *Coastal Sediments '15*, edited by P. Wang et al., World Scientific Publishing. 137-148.
19. Vonk, J.E., **Giosan, L.**, Blusztajn, J. et al., 2015, Spatial variations in geochemical characteristics of the modern Mackenzie Delta sedimentary system, *Geochimica et Cosmochimica Acta*, 171: 100–120.
20. \*Zorzi, C., Goni, M.F.S., Anupama, K., Prasad, S., Hanquiez, V., Johnson, J., **Giosan, L.**, 2015, Indian monsoon variations during three contrasting climatic periods: the Holocene, Heinrich Stadial 2 and the last interglacial-glacial transition, *Quaternary Science Reviews* 125, 50-60.
21. \*Bertrand, S., K Huguen, **L Giosan**, 2015, Limited influence of sediment grain size on elemental XRF core scanner measurements, in *Micro-XRF Studies of Sediment Cores*, Springer, 473-490.
22. Constantinescu, S., Achim, D., Rus, I., **Giosan, L.**, 2015, Embanking the Lower Danube: From Natural to Engineered Floodplains and Back, in *Geomorphic Approaches to Integrated Floodplain Management of Lowland Fluvial Systems*, Springer, 265-288.
23. Filipova-Marinova, M., D Pavlov, **L Giosan**, 2015, Multi-proxy records of Holocene palaeoenvironmental changes in the Varna Lake area, western Black Sea coast, *Quaternary International*, 401, 99-108.
24. \*Ferrier, K.L., Mitrovica, J.X. **Giosan, L.**, Clift, P.D., 2015, Sea-level responses to erosion and deposition of sediment in the Indus River basin and the Arabian Sea. *Earth and Planetary Science Letters*, 416: 12-20.
25. \*Ali, S., Hathorne, E., Frank, M., Gebregiorgis, D., Stattegger, K., Stumpf, R., Kutterolf, S., Johnson, J.E., **Giosan, L.**, 2015, South Asian monsoon history over the past 60 kyr recorded by radiogenic isotopes and clay mineral assemblages in the Andaman Sea. *Geochemistry, Geophysics, Geosystems*, 16:1525-2027.

26. **Giosan, L.**, Syvitski, J.P.M., Constantinescu, S., Day, J., 2014, Protect the World's Deltas, *Nature*, 516: 31-33.
27. \*Filip., F. and **Giosan, L.**, 2014, Evolution of Chilia lobes of the Danube delta: Reorganization of deltaic processes under cultural pressures, *Anthropocene*, 5, 65-70.
28. Betzler, C., Eberli, G.P., **Giosan, L.**, and Alvarez Zarikian, C.A., 2014. Sea level, currents, and monsoon evolution in the Indian Ocean. *International Ocean Discovery Program Scientific Prospectus*, 359. <http://dx.doi.org/10.14379/iodp.sp.359.2014>
29. Peterse, F. et al. (including **L. Giosan**), 2014, Branched glycerol dialkyl glycerol tetraethers in Arctic lake sediments: Sources and implications for paleothermometry at high latitudes, *Journal of Geophysical Research: Biogeosciences* 119 (8), 1738-1754.
30. Clift, P.D. and **Giosan, L.**, 2014, Sediment Fluxes and Buffering in the Post-Glacial Indus Basin, *Basin Research*, 26 (3), 369-386
31. Clift, P.D., **Giosan, L.** et al., 2014, Sediment storage and reworking on the shelf and in the canyon of the Indus fan system since the Last Glacial Maximum, *Basin Res.*, 26 (1), 183-202
32. Filipova-Marinova, M. et al. (including **L. Giosan**), 2014, Varna Lake (north-eastern Bulgaria): vegetation history and human impact during the last 8000 years, *Grana*, 1-3.
33. Filipova-Marinova, M. et al. (including **L. Giosan**), 2014, Vegetation development in the central part of the Bulgarian Black Sea coast during the last 13 000 years, *Grana*, 1-3.
34. \*Nace, T.E. et al. (including **L. Giosan**), 2014, The role of North Brazil Current transport in the paleoclimate of the Brazilian Nordeste margin and paleoceanography of the western tropical Atlantic during the late Quaternary, *Palaeogeog., Palaeoclimatology, Palaeoecology*, 415, 3–13.
35. Syvitski, J. et al. (including **L. Giosan**), 2014, Anthropocene metamorphosis of the Indus Delta and lower floodplain, *Anthropocene*, 3: 24-35.
36. \*Xing, F. et al. (including **L. Giosan**), 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, 20-31
37. Flores, J. et al., (including **Giosan L.**), 2014, Sedimentation rates from calcareous nannofossil and planktonic foraminifera biostratigraphy in the Andaman Sea, northern Bay of Bengal, and Eastern Arabian Sea, *Jour. Marine Petrol. Geol.*, 58 , 425-437.
38. \*Phillips, S., J. Johnson, **L. Giosan**, K. Rose, 2014, Monsoon-influenced variation in productivity and lithogenic sediment flux since 110 ka in the offshore Mahanadi Basin, northern Bay of Bengal, *Jour. Marine Petrol. Geol.*, 58 , 502-525.
39. \*Phillips, S. et al. (including **Giosan L.**), 2014, Long-timescale variation in bulk and clay mineral composition of Indian continental margin sediments in the Bay of Bengal, Arabian Sea, and Andaman Sea, *Jour. Marine Petrol. Geol.*, 58 , 117-138.
40. \*Cawthern, J. Johnson, **L. Giosan**, J.A. Flores, K. Rose, 2014, A late Miocene-early Pliocene biogenic silica crash in the Andaman/Bay of Bengal, *Jour. Marine Petrol. Geol.*, 58 , 490-501.
41. Teichert, B., J. Johnson, **L. Giosan**, K. Rose, 2014, Composition and Origin of Authigenic Carbonates in the Krishna-Godavari and Mahanadi Basins, eastern Continental Margin of India, *Jour. Marine Petrol. Geol.*, 58 , 438-460.
42. Johnson, J., S. Phillips, E. Miranda, **L. Giosan**, K. Rose, 2014, Influence of total organic carbon deposition on the inventory of gas hydrate in the Indian continental margins, *Jour. Marine Petrol. Geol.*, 58 , 406-424.

43. Rose, K., J. et al. (including **Giosan L.**), 2014, Anomalous porosity preservation and preferential accumulation of gas hydrate in the Andaman Accretionary Wedge, NGHP-01 Site 17A, *Jour. Marine Petrol. Geol.*, 58, 99-116.
44. **Giosan, L.**, Constantinescu, S., Filip, F., Bing, D., 2013, Invited Article: Maintenance of large deltas through channelization: Nature vs. humans in the Danube Delta, *Anthropocene*, 1: 35-45.
45. \*Nienhuis, J., Ashton, A., Roos, P., Hulscher, S. and **Giosan, L.**, 2013, Wave reworking of abandoned deltas, *Geophys. Res. Lett.*, 40, 5899–5903.
46. **Giosan L.** and Freeman, A., 2013, How Deltas Work: A Brief Look at the Mississippi River Delta in a Global Context, in Day, J. et al. *Perspectives on the Restoration of the Mississippi Delta: The Once and Future Delta*, Springer.
47. Bentley, S., Freeman, A.M., Willson, C.S., Cable, J. and **Giosan, L.**, 2013, Using what we have: optimizing sediment management in Mississippi River Delta restoration to improve the economic viability of the nation, in Day, J. et al. *Perspectives on the Restoration of the Mississippi Delta: The Once and Future Delta*, Springer.
48. Coolen, M., Orsi, W.D., Balkema, C., Quince, C., Harris K., Sylva, S.P., Filipova-Marinova, M., **Giosan, L.**, 2013, Evolution of the plankton paleome in the Black Sea from the Deglacial to Anthropocene, *Proceedings of the National Academy of Science*, 110, 21.
49. Ashton, A., Hutton, E., Kettner, A.J., Xing, F., Kallumadika, J., Neinhuis, J., **Giosan, L.**, 2013, Progress in Coupling Models of Coastline and Fluvial Dynamics, *Comput. & Geosci.*, 53, 21-29.
50. Filipova-Marinova, M., Pavlov, D., Vergiev, S., Slavchev, V., **Giosan, L.**, 2013, Paleocology and geoarchaeology of Varna Lake, Northeastern Bulgaria, *Comptes Rendus de l'Academie bulgare des Sciences*, 66.
51. Filipova-Marinova, M., Pavlov, D., Coolen, M., **Giosan, L.**, 2013, First high resolution marinopalynological stratigraphy of Late Quaternary sediments from the central part of the Bulgarian Black Sea area, *Quaternary International*, 239.
52. **Giosan, L.**; Clift, PD; Macklin, MG; Fuller, DQ; (2013) Sarasvati II. *Curr. Sci.*, 105: 888 – 889
53. **Giosan, L.** (2013), Comment on “Landscape change and archaeological settlements in the lower Danube valley and delta from early Neolithic to Chalcolithic time: A review” by Jean-Michel Carozza, Christian Micu, Florian Mihail, Laurent Carozza (*Quaternary International* 261, 21–31), *Quaternary International*, 296.
54. **Giosan, L.**; Clift, PD; Macklin, MG; Fuller, DQ; (2013) Sarasvati. *Curr. Sci.*, 104:285 - 285.
55. **Giosan, L.**, Coolen, M.J.L., Kaplan, J.O., Constantinescu, S., Filip, F., Filipova-Marinova, M., Kettner, J. and N. Thom (2012) Early anthropogenic transformation of the Danube-Black Sea system. *Sci. Reports*, 2: 10.1038/srep00582
56. \*Limmer, D.R., Henstock, T.J., **Giosan, L.**, Ponton, C., Tabrez, A.R., Macdonald, D.I.M., Clift, P.D., 2012. Impacts of sediment supply and local tectonics on clinoform distribution: the seismic stratigraphy of the mid Pleistocene-Holocene Indus Shelf. *Marine Geophysical Research*, 33: 251-267.
57. **Giosan, L.**, Clift, PD; Macklin, MG; Fuller, DQ; Constantinescu, S; Durcan, JA; Stevens, T; Duller, GAT; Tabrez, AR; Gangal, K; Adhikari, R; Alizai, A; Filip, F; VanLaningham, S; Syvitski, JPM. 2012, Fluvial landscapes of the Harappan civilization. *Proceedings of the National Academy of Sciences of the United States of America*, 109, pp. E1688-E169.



58. \*Alizai, A., Hillier, S., Clift, P.D., **Giosan, L.**, Hurst, A., VanLaningham, S., Macklin, M., 2012. Clay mineral variations in Holocene terrestrial sediments from the Indus Basin. *Quaternary Research*, 77: 368-381.
59. Clift, P. D., A. Carter, **L. Giosan**, J. Durcan, A. R. Tabrez, A. Alizai, S. VanLaningham, G. A. T. Duller, M. G. Macklin, D. Q. Fuller, and M. Danish. 2012, U-Pb zircon dating evidence for a Pleistocene Sarasvati River and capture of the Yamuna River . *Geology*, 40: 207-210.
60. \*Ponton, C., **L. Giosan**, T. I. Eglinton, D. Fuller, J. E. Johnson, P. Kumar, and T. S. Collet. Holocene Aridification of India. *Geophysical Research Letters*, 39, p. L03704, 2012.
61. \*Limmer, D. R., P. Böning, **L. Giosan**, C. Ponton, C. Köhler, M. J. Cooper, A. R. Tabrez, and P. Clift . 2012, Geochemical Record of Holocene to Recent Sedimentation on the Western Indus continental shelf, Arabian Sea. *Geochemistry, Geophysics, Geosystems*, 13, p. Q01008.
62. \*Alizai, A., Clift, P. D., **Giosan, L.**, VanLaningham, S., Hinton, R., Tabrez, A. R., Danish, M. 2011, Pb isotopic variability in the modern-Pleistocene Indus River system measured by ion microprobe in detrital K-feldspar grains. *Geochimica et Cosmochimica Acta*, 75: 4771-4795.
63. \*Ashton, AD and **Giosan, L.**, Wave-angle control of delta evolution. *Geophysical Research Letters*, 38, p. L13405, 2011
64. \*McCartney-Castle, K., Voulgaris, G., Kettner, A.J., and **Giosan, L.**, 2012, Simulating fluvial fluxes in the Danube watershed: The Little Ice Age versus modern day, *Holocene*, 22: 91-105.
65. Syvitski, JPM, Kettner, AJ, Overeem, I, Hutton, EWH, Hannon, MT, Brakenridge, GR, Day, J, Vörösmarty, C, Saito, Y, **Giosan, L.**, & Nicholls, RJ. 2009. Sinking deltas due to human activities. *Nature Geoscience*, 2: 681 - 686.
66. Filipova-Marinova, M., **Giosan, L.**, et al., 2011, Palaeoecology of Submerged Prehistoric Settlements in Sozopol Harbour, Bulgaria, in Benjamin, J. et al. (Eds.), *Submerged Prehistory*, Oxbow Books, UK.
67. Constantinescu, S., **Giosan, L.**, Vespremeanu-Stroe, A., 2010, A cartographical perspective to the engineering works at the Sulina mouth, Danube Delta, *Acta Geodaetica et Geophysica Hungarica*, 45: 71-79.
68. **Giosan, L.**, F. Filip, S. Constantinescu, 2009, Was the Black Sea catastrophically flooded in the early Holocene? *Quaternary Science Reviews*, 28: 1-6.
69. Coolen, M. J. L., J. P. Saenz, **L. Giosan**, N. Y. Trowbridge, P. Dimitrov, D. Dimitrov, T. I. Eglinton. 2009, DNA and lipid molecular stratigraphic records of haptophyte succession in the Black Sea during the Holocene. *Earth and Planetary Science Letters*, 284, 610-621.
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### Invited Papers/Reviews/Overviews/Interviews

1. Gill, V. 2014: BBC News Interview: *Major deltas could be drowned*, <http://www.bbc.com/news/science-environment-30252137>
2. Schultz, C., 2013: Eos Interview with **L. Giosan** on Climate, Landscapes and Civilizations, *Eos*, 94, 40, 355-356, <http://onlinelibrary.wiley.com/doi/10.1002/2013EO40/pdf>
3. Nuwer, R., 2012: NYT Interview: *An Ancient Civilization, Upended by Climate Change*, [http://green.blogs.nytimes.com/2012/05/29/an-ancient-civilization-upended-by-climate-change/?\\_r=0](http://green.blogs.nytimes.com/2012/05/29/an-ancient-civilization-upended-by-climate-change/?_r=0)
4. Nuwer, R., 2012: NYT Interview: *From Ancient Deforestation, a Delta Is Born*, <http://green.blogs.nytimes.com/2012/09/14/from-ancient-deforestation-a-delta-is-born/>
5. Mississippi Delta Science and Engineering Special Team (including **Giosan, L.**), 2012, Answering 10 Fundamental Questions about the Mississippi Delta, National Audubon Society, the Environmental Defense Fund, and the National Wildlife Federation.
6. Clift et al. (including **Giosan, L.**), 2011, Studying the relationship between past people and their environments, *Eos*, <http://onlinelibrary.wiley.com/doi/10.1029/2011EO240006/abstract>
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11. **Giosan, L.** and Goodbred, S., 2006, Deltaic Environments, in *Encyclopedia of Quaternary Sciences*, Elsevier.
12. **Giosan, L.** and Flood, R., 2004, Drilling the Aegean-Marmara-Black Seas to Investigate Environmental Changes, *Eos*, <http://onlinelibrary.wiley.com/doi/10.1029/2004EO180004/pdf>

**Abstracts** - last 5 years; author/co-author over 150 conference presentations since 1997)

(\* - student, postdoc or research assistant presentations)

1. **Giosan, L.**, 2017, Indian Monsoon: Trends, Rhythms and Thresholds since Eocene, China IODP workshop, Tongji University, Shanghai, China;
2. **Giosan, L.**, 2017, Indian Monsoon Controversies, IODP Workshop, URI, Narragansett.

3. **Giosan, L.**, 2016, From Natural to Design River Deltas, EGU General Assembly Conference Abstracts 18, 1830.
4. Orsi, W et al. (including **Giosan, L.**), 2016, Climate oscillations reflected in the Arabian Sea subseafloor microbiome, EGU General Assembly Conference Abstracts 18, 4912.
5. Munoz, S, **Giosan, L.**, Jeffrey, D, Dee, S, Shen Z, 2016, Taming the Mighty Mississippi: Integrating paleo-flood data and modeling to understand the patterns and causes of extreme floods on a major river system, EGU General Assembly Conference Abstracts 18, 1808.
6. Zorzi, C., et al. (including **Giosan, L.**), 2016, Indian monsoon variations during three contrasting climatic periods: the Holocene, Heinrich Stadial 2 and the last interglacial-glacial transition, EGU General Assembly Conference Abstracts 18, 3985.
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12. Anderson, C. H.; Dunlea, A. G.; Murray, R. W.; Kinsley, C. W.; McGee, D.; **Giosan, L.**; Zheng, H.; Tada, R.; Alvarez Zarikian, C. A., 2014, Tracking Monsoon Related Provenance Changes in Continental Margin Sediments of the East China Sea: Preliminary Results from IODP Expedition 346, American Geophysical Union, Fall Meeting 2014, abstract #PP43D-1506.
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14. DeLong, K. A.; Came, R. E.; Johnson, J. E.; **Giosan, L.**, 2014, Millennial-Scale Variability in the Indian Monsoon and Links to Ocean Circulation, American Geophysical Union, Fall Meeting 2014, abstract #PP13D-06.
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16. Nienhuis, J.; Ashton, A. D.; **Giosan, L.**; Nardin, W.; Fagherazzi, S., 2014, Sediment Bypassing of River Mouths: Mechanisms and Effects on Delta Evolution, American Geophysical Union, Fall Meeting 2014, abstract #EP31B-3532.
17. **Giosan, L.** et al., 2013, Invited: Drilling Deltas, ICDP Conference, Postdam, Germany.
18. **Giosan, L.** et al., 2013, Invited: The Anthropocene in the Danube-Black Sea System: From Records to Causes [AGU Fall Meeting]
19. **Giosan, L.** et al., 2013, Invited: Maintenance of large deltas through channelization [AGU Fall Meeting]
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23. Moy et al. (including **Giosan, L.**), 2012, Eolian deposition of glacial flour dust to the Gulf of Alaska during the Holocene [AGU Fall Meeting]
24. Vonk et al. (including **Giosan, L.**), 2012, Source and composition of sediments and organic carbon delivered to the Mackenzie River delta [AGU Fall Meeting]
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