

## WONSUCK KIM

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 50 Yonsei-ro, Seodaemun-gu, Seoul, Republic of Korea 03722

### EDUCATION

- 2007**      **Ph.D. in Geology**, University of Minnesota, Minneapolis, USA.  
 ▪ Dissertation title: “Coupled fluvial and shoreline dynamics: Experiments and Theory.”  
 ▪ Advisor: Chris Paola
- 2000**      **M.S. in Applied Geology**, Yonsei University, Seoul, Korea.  
 ▪ Dissertation title:  
 “Numerical analysis for fluid flow and sediment transport process on an artificial lake.”  
 ▪ Advisor: Yong-hoon Lee
- 1998**      **B.S. in Geology**, Yonsei University, Seoul, Korea.

### PROFESSIONAL POSITIONS

- 2019. 9–**      **Associate Professor (Tenured)**, Department of Earth System Sciences  
 Yonsei University, Seoul, Korea
- 2019. 9–**      **Adjunct Associate Professor**, Department of Geological Sciences  
 University of Texas, Austin
- 2015–2019**      **Associate Professor (Tenured)**, Department of Geological Sciences  
 University of Texas, Austin
- 2009–2015**      **Assistant Professor**, Department of Geological Sciences  
 University of Texas, Austin
- 2010**      **NU Invited Associate Professor**, Graduate School of Science and Technology  
 Nagasaki University, Japan
- 2007–2008**      **Post-Doctoral Research Associate**, Department of Civil and Environmental Engineering  
 University of Illinois, Urbana-Champaign  
 ▪ Advisor: Gary Parker
- 2005–2007**      **Experimental EarthScape (XES) Facility Manager**, St. Anthony Falls Laboratory,  
 University of Minnesota  
 ▪ 2006 Interactions between transversal and axial drainages in an asymmetric subsiding basin  
 ▪ 2005 Steering of experimental channels by an active relay ramp
- 2002–2007**      **Research Assistant**, National Center for Earth-surface Dynamics, University of Minnesota  
 ▪ Effect of active tectonics on timescale of fluvial autogenic processes  
 ▪ Shoreline responses to autogenic processes in the fluvial system  
 ▪ Roles of stratigraphic controls on shoreline migration
- 2004**      **Teaching Assistant**, Department of Geology & Geophysics, University of Minnesota  
 ▪ Lab for introduction of Geology (GEO 1001)
- 2000–2001**      **Research Associate**, Department of Geology, Kangwon National University, Korea  
 ▪ Environmental and geological studies on sediment deposit in the artificial lake Soyang  
 ▪ Basin analysis on sequence development in the late Tertiary Ulleung Basin, offshore Korea
- 1998–2000**      **Research Assistant**, Earth System Sciences, Yonsei University, Korea  
 ▪ A study of numerical analysis for sediment transport in an artificial lake

- 1998 **Teaching Assistant**, Earth System Sciences, Yonsei University, Korea  
 ▪ Lab for Computer and Geosciences
- 1998–2000 **Manager of Database and Web Services**, Info-Center for Environmental Geology, Korea  
 ▪ <http://ieg.or.kr/>

## AWARDS

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- 2020-2021 **Distinguished Graduate-level Teaching Award (May 2021)**  
 ▪ College of Sciences, Yonsei University
- 2020-2021 **Distinguished Undergraduate-level Teaching Award (March 2021)**  
 ▪ Yonsei University
- 2019-2020 **Distinguished Graduate-level Teaching Award**  
 ▪ College of Sciences, Yonsei University
- 2018-2019 **G. Moses and Carolyn G. Knebel Distinguished Teaching Award**  
 ▪ Jackson School of Geosciences, University of Texas
- 2017-2019 **J. Nalle Gregory Fellow in Sedimentary Geology**  
 ▪ Department of Geological Sciences, University of Texas
- 2016-2017 **David P. Carlton Centennial Fellow in Geology**  
 ▪ Department of Geological Sciences, University of Texas
- 2016 **2016 Geoscience Information Society Best Paper Award**  
 “Hsu, L., Martin, R., McElroy, B., Miller, K., and Kim, W., 2015, Data management, sharing, and reuse in experimental geomorphology: challenges, strategies, and scientific opportunities: *Geomorphology*, v. 244, p. 180-189, DOI: 10.1016/j.geomorph.2015.03.039”  
 ▪ GSIS (Geoscience Information Society)
- 2015-2016 **Peter T. Flawn Centennial Fellow in Geology**  
 ▪ Department of Geological Sciences, University of Texas
- 2015 **Faculty Annual Evaluation Award**  
 ▪ Department of Geological Sciences, University of Texas
- 2014 **2014 Editor’s Choice Award in Water Resources Research**  
 “Kenney et al., 2013, Cost analysis of water and sediment diversions to optimize land building in the Mississippi River delta, *Water Resources Research*, v. 49, p. 3388–3405, DOI:10.1002/wrcr.20139.”  
 ▪ AGU (American Geophysical Union)
- 2013 **2012 Outstanding Paper for Journal of Sedimentary Research**  
 “Connell, et al., G.A., 2012, Fluvial morphology and sediment-flux steering of axial-transverse boundaries in an experimental basin: *Journal of Sedimentary Research*, v. 82, no. 5, p. 310-325, DOI: 10.2110/jsr.2012.27”  
 ▪ SEPM (Society for Sedimentary Geology)
- 2013–2014 **Total E&P USA Petroleum Faculty Fellowship in Geological Sciences**  
 ▪ Jackson School of Geosciences, University of Texas
- 2013 **Faculty Science Performance Award**  
 ▪ Department of Geological Sciences, University of Texas
- 2012–2013 **Total E&P USA Petroleum Faculty Fellowship in Geological Sciences**  
 ▪ Jackson School of Geosciences, University of Texas
- 2011–2012 **John E. “Brick” Elliott Centennial Teaching Fellowship**  
 ▪ Jackson School of Geosciences, University of Texas
- 2010–2011 **John E. “Brick” Elliott Centennial Professorship in Geological Sciences**  
 ▪ Jackson School of Geosciences, University of Texas
- 2010 **2010 JSPS Postdoctoral Fellowship for North American and European Researchers**  
 ▪ Japan Society for the Promotion of Science, Japan
- 2009 **2009-2010 Big XII Faculty Fellowship**  
 ▪ University of Texas, Austin
- 2007 **Alvin G. Anderson Award**  
 ▪ St. Anthony Falls Laboratory, University of Minnesota

- 2004            **Outstanding Student Paper Award (Hydrology Section)**  
 ▪ American Geophysical Union, 2004 Annual Fall Meeting, San Francisco
- 2004            **Frank and Julie Tsai Travel Award**  
 ▪ St. Anthony Falls Laboratory, University of Minnesota
- 2004–2005     **Richard Clarence Dennis Graduate Fellowship**  
 ▪ Department of Geology & Geophysics, University of Minnesota
- 1997            **Best Academic Award (Senior)**  
 ▪ Earth System Sciences, Yonsei University, Korea
- 1996            **Best Academic Award (Junior)**  
 ▪ Earth System Sciences, Yonsei University, Korea

## INVITED TALKS

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- 2023            ▪ **KIGAM (Korea Institute of Geoscience and Mineral Resources)**, Daejeon, Korea (May 16, 2023)  
 “Earth 2050: Changes in depositional environment of coastal region near Nakdong River due to climate change”
- 2022            ▪ **Korea National Oil Corporation**, Ulsan, Korea (November 11, 2022)  
 “Morphodynamics and Quantitative Stratigraphy: Current research updates”  
 ▪ **Korea Institute of Ocean Science & Technology**, East-sea Research Center (September 7, 2022)  
 “Deciphering the evolution of Dokdo recorded in the submarine terraces.”
- 2021            ▪ **The 3rd meeting of Sandstone Session 2021**, Exploration Technology Committee, the Japanese Association for Petroleum Technology (JAPT), Tokyo (Online, August 30, 2021)  
 “Coevolution of salt tectonics and sedimentation: Experiments”  
 “Linking levee construction with channel avulsion: insights from an advection settling model”  
 “The effect of bottomset on fluviodeltaic deltaic building process: Numerical modeling and physical experiment”
- 2020            ▪ **Ewha Womans University**, Seoul, Korea (May 6, 2020)  
 “Coevolution of salt tectonics and sedimentation: Experiments”
- 2019            ▪ **Jeon, Jae-Kyu Memorial Research Workshop**, Seoul National University, Seoul, Korea (Nov 29, 2019)  
 “Pause of Earth recorded in sedimentary strata”  
 ▪ **Kangwon National University**, Chuncheon, Kangwon-do, Korea (Nov 21, 2019)  
 “Coevolution of salt tectonics and sedimentation: Experiments”  
 ▪ **Korea National Oil Corporation**, Ulsan, Korea (October 16, 2019)  
 “Coevolution of salt tectonics and sedimentation: Experiments”  
 ▪ **KIGAM (Korea Institute of Geoscience and Mineral Resources)**, Daejeon, Korea (August 28, 2019)  
 “Salinity dependent flocculation and total organic carbon in fine-grained lake deposits”
- 2018            ▪ **Korean Rural Research Institution**, Ansan-si, Gyeonggi-do, Korea (July 10, 2018)  
 “Can humans jump-start the natural delta-building processes of rivers?”
- 2016            ▪ **Joint 2016 CSDMS SEN Annual Meeting**, Boulder, CO (May 16 – 19, 2016)  
 “Overcoming Grand Challenges by Collaboration between Experimentalists and Modelers (keynote)”
- 2015            ▪ **Bureau of Economic Geology**, University of Texas, Austin (Nov 20, 2015)  
 “Sedimentation on a Salt Substrate: New opportunities in sediment experiment with a polymer layer”  
 ▪ **GSA 2015 Annual Meeting**, Baltimore, Maryland (Nov 1 – 4, 2015)  
 “Migration reversals in grain-size transitions to shoreline”
- 2013            ▪ **Kangwon National University**, Chuncheon, Kangwon-do, Korea (Nov 21 – 22, 2013)

- “Dynamic sedimentation on deforming salt”
  - **Seoul National University**, Seoul, Korea (Nov 19, 2013)  
“Sediment Transport and Earth-surface Processes (STEP) basin experiments in 2012-2013”
  - **Korea National Oil Corporation**, Seoul, Korea (Nov 18 – 19, 2013)  
“Dynamic sedimentation on deforming salt”
  - **University of Wyoming**, Laramie, WY (Oct 7, 2013)  
“Dynamic sedimentation on deforming salt (Distinguished Lecturer Series)”
  - **CSDMS 2013 Annual Meeting**, Boulder, CO (Mar 23 – 25, 2013)  
“Building a network for sediment experimentalists and modelers (keynote)”
- 2012
  - **AGU 2012 Annual Fall Meeting**, San Francisco, CA (Dec 7, 2012)  
“Effects of imposed variable rates of lateral subsidence on a deltaic system (invited)”
  - **AGU 2012 Annual Fall Meeting**, San Francisco, CA (Dec 7, 2012)  
“River bifurcation: Learning from non-bifurcating experimental channels (invited)”
  - **Yonsei University**, Seoul, Korea (Aug 3, 2012)  
“Decoupling allogenic forcing from autogenic processes: Experimental geomorphology and stratigraphy”
  - **Korea National Oil Corporation**, Seoul, Korea (July 31, 2012)  
“Sediment Transport and Earth-surface Processes (STEP) basin experiments in 2011-2012”
  - **Kangwon National University**, Chuncheon, Kangwon-do, Korea (July 25 – 27, 2012)  
“Sediment transport and delta evolution”
  - **UT Honor’s Colloquium**, Austin, TX (July 20, 2012)  
“Morphodynamics: Shaping Earth surface”
  - **Shell Corp.**, Houston, TX (Apr 20, 2012)  
“Sediment Transport and Earth-surface Processes (STEP) basin experiments in 2011-2012”
- 2011
  - **National Center for Earth-surface Dynamics**, Minneapolis, MN (Nov 2, 2011)  
“Decoupling allogenic forcing from autogenic processes: Experimental geomorphology and stratigraphy”
  - **Kangwon National University**, Chuncheon, Kangwon-do, Korea (July 4 – 8, 2011)  
“Delta Simulation”
  - **University of Texas Institute for Geophysics**, Austin, TX (Apr 22, 2011)  
“Decoupling allogenic forcing from autogenic processes: Experimental geomorphology and stratigraphy”
- 2010
  - **NSF GeoPRISMS Rift Initiation and Evolution workshop**, Santa Fe, NM (Nov 4 – 6, 2010)  
“Decoupling allogenic forcing from autogenic processes: Experimental stratigraphy”
  - **Kangwon National University**, Chuncheon, Kangwon-do, Korea (Aug 16 – 18, 2010)  
“Shoreline Dynamics”
  - **Norwegian Petroleum Society 2010 Conference**, Stavanger, Norway (May 4 – 6, 2010)  
“Decoupling allogenic forcing from autogenic processes: Experimental stratigraphy”
  - **AAPG 2010 Annual Convention and Exhibit**, New Orleans, LA (Apr 11 – 14, 2010)  
“Decoupling allogenic forcing from autogenic processes: Clastic and carbonate experimental stratigraphy”
  - **Dept. of Earth and Environmental Sciences, Tulane University**, New Orleans, LA (Jan 15, 2010)  
“Land building in the delta of the Mississippi River: Is it feasible?”
  - **LCA Science Board Meeting**, New Orleans, LA (Jan 14, 2010)  
“Numerical modeling of the Mississippi River Delta”
- 2009
  - **KIGAM (Korea Institute of Geoscience and Mineral Resources)**, Daejeon, Korea (Aug 7, 2009)  
“Decoupling allogenic forcing from autogenic processes: Experimental stratigraphy”
  - **Kangwon National University**, Chuncheon, Kangwon-do, Korea (Aug 3 – 5, 2009)  
“Shoreline Dynamics”
  - **Yonsei University**, Seoul, Korea (July 28, 2009)  
“Decoupling allogenic forcing from autogenic processes: Experimental stratigraphy”
  - **SEPM Research Group**, AAPG Annual Convention, Denver, CO (Jun 8, 2009)  
“Coupling of physical and numerical models and decoupling of external forcing and internal processes”
  - **Oceanography and Coastal Sciences, Louisiana State University**, Baton Rouge, LA (Apr 2, 2009)  
“Land building in the delta of the Mississippi River: Is it feasible?”

**2008**

- Department of Earth, Atmospheric & Planetary Sciences, MIT
- Department of Geosciences, Princeton University
- Jackson School of Geosciences, University of Texas, Austin
- Department of Geology and Geophysics, Texas A&M University

**2007**

- Oceanography and Coastal Sciences, Louisiana State University
- Department of Geology and Geophysics, University of Wisconsin, Madison
- Department of Geology and Geophysics, Louisiana State University
- St. Anthony Falls Laboratory, University of Minnesota, Minneapolis

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## SUMMARY OF RESEARCH

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Kim's research seeks to advance our understanding of stratigraphic responses to sediment transport processes and imposed boundary conditions in depositional basins. Both depositional mechanics and environmental forcing strongly influence the morphodynamics of the sediment-fluid interface. Subsurface architecture is a record of the "fossilized" dynamics of this morphodynamic-moving boundary. The research interest lies in improving tools for predicting subsurface spatial architecture across a range of scales using an understanding of sediment transport and surface flow dynamics and their time-integrated preservation in depositional systems. Kim's research group conducts laboratory experiments to study sedimentation over space and time scales that are inaccessible in the field, and use the experimental data to motivate and constrain theoretical models of morphodynamics and depositional patterns. Kim's group also applies insight gained from physical and mathematical models to field data in order to improve interpretation of paleoenvironments using the stratigraphic record.

### LABORATORY FACILITY

Kim designed and built flume facilities for scientific research and educational purposes: 1) Sediment Transport and Earth-surface Processes (STEP) basin in the Morphodynamics Laboratory located in building 120, J.J. Pickle Research Campus, 2) Experimental Delta Dynamics (Eddy) basin in the Morphodynamics Laboratory, 3) Chemo-Morpho-Dynamics (CMD) Flume in EPS 2.108 on the main campus, and 4) a twin Total E&P teaching flumes in EPS 2.108 on the main campus. Kim also built another set of flume facility at Yonsei University, South Korea. The laboratory has a three-dimensional Delta Tank and two 4-m long Sediment Flow Flumes.

- STEP Basin: One of only three flume facilities in the world that provides a computer-controlled basement motion.
  - Period of design and construction: January 2009 – March 2011
  - Total cost: ~\$350,000
  - Dimension: 5-m long, 4-m wide, and 1.5-m tall
  - Physically model morphodynamic and stratigraphic evolution of the fluviodeltaic system in response to sea level, sediment supply, and tectonic variations.
- EDDy Basin:
  - Period of design and construction: December 2013 – September 2014
  - Total cost: ~\$10,000
  - Dimension: 2.5-m long, 2-m wide, and 0.5-m tall
  - Physically model morphodynamic and stratigraphic evolution of the fluviodeltaic system in response to sea level and sediment supply.
- CMD Flume:
  - Period of design and setup: September 2011 – February 2012
  - Total cost: ~\$10,000
  - Total footprint: 3-m long and 1.5-m wide
  - Model for chemically precipitated carbonates using artificial spring water. The system examines the morphodynamic evolution of cascading travertine step structures.
- Total E&P Teaching Flumes:
  - Period of design and setup: September 2012
  - Total cost: ~\$2,000
  - Total footprint: 1-m long, 0.5-m tall, and 0.05-m wide

- Teaching flumes for the GEO391 Morphodynamics course. The system can build deltaic strata under variable sea-level cycles.
- Delta Tank: Three-dimensional delta and clinoform experimental facility
  - Period of design and construction: January 2020 – November 2020
  - Total cost: ~\$25,000
  - Dimension: Triangular shape with two 2-m long sides, and 0.5-m tall
  - Physically model morphodynamic and stratigraphic evolution of the fluviodeltaic system and clinoform in response to sea level and sediment supply.
- Sediment Flow Flumes:
  - Period of design and construction: January 2020 – November 2020
  - Total cost: ~\$25,000
  - Dimension: 4-m long, 0.75-m tall, and 0.13-m or 0.4-m wide
  - Physically model morphodynamic and stratigraphic evolution of the submarine fan system and rivers in response to sea level and sediment supply.

## PUBLICATIONS (PEER REVIEWED)

Google Scholar: (<http://scholar.google.com/citations?user=5MYIjHEAAAAJ>)

ORCID: (<https://orcid.org/0000-0002-4709-971X>)

Researcher ID: (<https://publons.com/researcher/2847802/wonsuck-kim/>)

\*Graduate student author †Postdoc author §Undergraduate student author

### UNDER REVIEW, REVISION, AND PREPARATION

- Kim, M.\*, Chun, B., Chamberlain, E., and **Kim, W.**, 2023, Enhanced mud retention as an autogenic mechanism for sustained delta growth: (in preparation)
- Shin, H.\*, **Kim, W.**, Lee, H.\*, Johnson, J., and Paola, C., 2023, Fossilized autogenic responses of grain-size transition to sediment supply and water discharge: Alluvial fan experiments: *Sedimentology* (under review)
- Wang, R.†, **Kim, W.**, Colombera, L., Mountney, N.P., Lee, Y., and Lee, J., 2023, Autogenic evolution of valley-confined deltas during sea-level rise: insights from numerical and physical modelling, (under revision)
- Kim, W.**, Zhou, C., Zhang, Z., Yuan, X., Zhang, J.†, Olariu, C., Steel, R., and Strom, K., 2023, Flocculation, Gravity flows, and Total Organic Carbon Hotspots: (in preparation)

### 2023

- Wu, C.†, **Kim, W.**, Herring, R., Cardenas, B., Dong, T., Ma, H., Moodie, A., Nittrouer, J.A., Tsai, F., and Li, A., 2023, Pace of meandering and avulsion set lowland river sinuosity on Earth and Mars: *Nature Geoscience*, v. 16, p. 747-753, DOI: 10.1038/s41561-023-01231-1.
- Wu, C.†, Kim, M., and **Kim, W.**, 2023, Natural levees increase in prevalence in the backwater zone: Coastal Trinity River, Texas, USA: Comment: *Geology*, v. 51, p. e564, DOI: 10.1130/G51212C.1.
- Nienhuis, J.H., **Kim, W.**, Milne, G.A., Quock, M., Slangen, A.B.A., and Tornqvist, T.E., 2023, River deltas and sea-level rise, *Annual Review of Earth and Planetary Sciences*, v. 51, p. 79-104, DOI: 10.1146/annurev-earth-031621-093732.

### 2022

- Han, J.\*, and **Kim, W.**, 2022, Linking levee-building processes with channel avulsion: geomorphic analysis for assessing avulsion frequency and channel reoccupation: *Earth Surface Dynamics*, v. 10, p. 743-759, DOI: 10.5194/esurf-10-743-2022
- Kim, M.\*, **Kim, W.**, and Nahm, W-H., 2022, The effect of bottomset on fluviodeltaic land-building process: Numerical modelling and physical experiment: *Basin Research*, v. 34, p. 1763-1780, DOI: 10.1111/br.12684

### 2021

- Chamberlain, E.L., Shen, Z., **Kim, W.**, McKinley, S., Anderson, S., and Tornqvist, T.E., 2021, Does load-induced shallow subsidence inhibit delta growth?: *Journal of Geophysical Research – Earth Surface*, v. 126, no. 11, e2021JF006153, DOI: 10.1029/2021JF006153
- Zhao, F.§, Cardenas, B.T.†, and **Kim, W.**, 2021, Controls of aeolian dune height on cross-strata architecture: White Sands Dune Field, New Mexico, USA: *Journal of Sedimentary Research*, v. 91, no. 5, p. 495-506, DOI: 10.2110/jsr.2020.138
- Olariu, C., Zhou, C., Steel, R., Zhang, Z., Yuan, X., Zhang, J., Chen, S., Cheng, D., and **Kim, W.**, 2021, Controls on the stratal architecture of lacustrine delta successions in low-accommodation conditions: *Sedimentology*, v. 68, no. 5, p. 1941-1963, DOI: 10.1111/sed.12838
- 2020**
- Daniller-Varghese, M.\*, **Kim, W.**, and Mohrig, D., 2020, The effect of flood intermittency on bifurcations in fluviodeltaic systems: Experiment and Theory: *Sedimentology*, v. 67, no. 6, p. 3055-3066, DOI: 10.1111/sed.12732
- Zhang, J.†, Olariu, C., Steel, R., and **Kim, W.**, 2020, Climatically controlled lacustrine clinofolds: Theoretical and modeling results: *Basin Research*, v. 32, no. 2, p. 240-250, DOI: 10.1111/br.12383
- 2019**
- Piliouras, A.\* and **Kim, W.**, 2019, Upstream and downstream boundary conditions control the physical and biological development of river deltas: *Geophysical Research Letters*, v. 46, no. 20, p. 11188-11196.
- Zhang, J.†, **Kim, W.**, Olariu, C., and Steel, R., 2019, Accommodation- vs. supply-dominated systems for sediment partitioning to deep water: *Geology*, v. 47, no. 5, p. 419-422, DOI: 10.1130/G45730.1
- Lim, Y.\*, Levy, J., Goudge, T.†, and **Kim, W.**, 2019, Ice cover as a control on the morphodynamics and stratigraphy of Arctic deltas: *Geology*, v. 47, no. 5, p. 399-402, DOI: 10.1130/G45146.1
- Miller, K.†, **Kim, W.**, and McElroy, B., 2019, Laboratory investigation on effects of flood intermittency on fan delta dynamics: *Journal of Geophysical Research – Earth Surface*, v. 124, no. 2, p. 383-399, DOI: 10.1029/2017JF004576
- Piliouras, A.\* and **Kim, W.**, 2019, Delta size and plant patchiness as controls on channel network organization in experimental deltas: *Earth Surface Processes and Landforms*, v. 44, no. 1, p. 259-272, DOI: 10.1002/esp.4492
- 2018**
- Carlson, B.§, Piliouras, A.\*, Muto, T., and **Kim, W.**, 2018, Control of basin water depth on channel morphology and autogenic timescales in deltaic systems: *Journal of Sedimentary Research*, v. 88, no. 9, p. 1026-1039, DOI: 10.2110/jsr.2018.52
- Baumanis, C.§ and **Kim, W.**, 2018, Reverse migration of lithofacies boundary and shoreline in response to sea level rise: *Basin Research*, v. 30, no. S1, p. 89-100, DOI: 10.1111/br.12209
- 2017**
- Piliouras, A.\*, **Kim, W.**, and Carlson, B.§, 2017, Balancing aggradation and progradation on a vegetated delta: The importance of fluctuating discharge in depositional systems: *Journal of Geophysical Research – Earth Surface*, v. 122, no. 10, p. 1882-1900, DOI: 10.1002/2017JF004378
- Chatmas, E.\*, **Kim, W.**, and Kocurek, G., 2017, The effect of a pre-deposited mobile substrate on terminal fan evolution and channel organization: Tank experiments: *Journal of Sedimentary Research*, v. 87, no. 8, p. 921-934, DOI: 10.2110/jsr.2017.51
- Johnson, J., Delbecq, K.\*, and **Kim, W.**, 2017, Predicting paleohydraulics from surge and tsunami deposits: Using experiments to improve inverse model accuracy: *Journal of Geophysical Research – Earth Surface*, v. 122, no. 4, p. 760-781, DOI: 10.1002/2015JF003816
- 2016**
- Liang, M.†, **Kim, W.**, and Passalacqua, P., 2016, How much subsidence is enough to change the morphology of river deltas: *Geophysical Research Letters*, v. 43, no.19, p. 10266–10276, DOI: 10.1002/2016GL070519
- Rossi, V.M.\*, **Kim, W.**, Leva, J.L., Edmonds, D., Geleynse, N., Olariu, C., Steel, R., Hiatt, M., and Passalacqua, P., 2016, Impact of tidal currents on delta-channel deepening, stratigraphic architecture and sediment bypass beyond the shoreline: *Geology*, v. 44, no. 11, p. 927-930, DOI:10.1130/G38334.1
- Muto, T., Furubayashi, R., Tomer, A., Sato, T., **Kim, W.**, Naruse, H., and Parker, G., 2016, Planform evolution of deltas with graded alluvial topsets: Insights from three-dimensional tank experiments,

- geometric considerations and field applications: *Sedimentology*, v. 63, no. 7, p. 2158-2189, DOI: 10.1111/sed.12301
- Koo, W-M.\*, Olariu, C., Steel, J.R., Olariu, M.I., Carvajal, C.R., and **Kim, W.**, 2016, Coupling between shelf-edge architecture and submarine-fan growth style in a supply-dominated margin: *Journal of Sedimentary Research*, v. 86, no. 6, p. 613-628, DOI: 10.2110/jsr.2016.42
- Johnson, J., Delbecq, K.\*, **Kim, W.**, and Mohrig, D., 2016, Experimental tsunami deposits: Linking hydrodynamics to sediment entrainment, advection lengths and downstream fining: *Geomorphology*, v. 253, p. 478-490, DOI:10.1016/j.geomorph.2015.11.004
- 2015**
- Johnson, J., Aronovitz, A.\*, and **Kim, W.**, 2015, Coarser and Rougher: Effects of fine gravel pulses on experimental step-pool channel morphodynamics: *Geophysical Research Letters*, v. 42, no. 20, p. 8432-8440, DOI: 10.1002/2015GL066097
- Hsu, L., Martin, R.†, McElroy, B., Miller, K.†, and **Kim, W.**, 2015, Data management, sharing, and reuse in experimental geomorphology: challenges, strategies, and scientific opportunities: *Geomorphology*, v. 244, p. 180-189, DOI: 10.1016/j.geomorph.2015.03.039
- Kopriva, B.T.\*, and **Kim, W.**, 2015, Coevolution of minibasin subsidence and sedimentation: Experiments: *Journal of Sedimentary Research*, v. 85, p. 254-264, DOI: 10.2110/jsr.2015.24
- Kopp, J.\* and **Kim, W.**, 2015, The effect of lateral tectonic tilting on fluviodeltaic planform and stratal asymmetries: Experiment and theory: *Basin Research*, v. 27, no. 4, p. 517-530, DOI: 10.1111/bre.12086
- 2014**
- Piliouras, A.\*, **Kim, W.**, Kocurek, G.A., Mohrig, D., and Kopp, J., 2014, Sand on salt: Control on dune subsidence and determining salt substrate thickness: *Lithosphere*, v. 6, no. 3, p. 195-199, DOI: 10.1130/L323.1
- Hajek, E., Paola, C., Petter, A., AlAbbad, A., and **Kim, W.**, 2014, Amplified shoreline response to base-level change by back-tilted subsidence: *Journal of Sedimentary Research*, v. 84, no. 6, p. 470-474, DOI: 10.2110/jsr.2014.34
- Kim, W.**, Petter, A.L., Straub, K., and Mohrig, D., 2014, Investigating the autogenic process response to allogenic forcing: Experimental geomorphology and stratigraphy: in From Depositional Systems to Sedimentary Successions on the Norwegian Continental Margin, edited by A.W. Martinius, R. Ravnas, J.A. Howell, R.J. Steel, and J.P. Wonham: *IAS Special Publication*, v. 47, p. 127-138
- Leva, J.L.\*, **Kim, W.**, and Steel, R.J., 2014, Autoacceleration of clinoform progradation in foreland basins: Theory and experiments: *Basin Research*, v. 26, no. 4, p. 489-504, DOI: 10.1111/bre.12048
- 2013**
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- Carlson, B., **Kim, W.**, and Piliouras, A., 2013, Basin depth control on the autogenic timescale of fluviodeltaic systems: Abstract EP23A-04 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9 – 13 Dec.

- Piliouras, A., **Kim, W.**, and Carlson, B., 2013, Effects of riparian vegetation on river delta morphodynamics and shoreline variability, in G. Coco, B. Blanco, M. Olabarrieta, and R. Tinoco, River, Coastal, and Estuarine Morphodynamics: RCEM 2013, Santander, Spain, June 2013.
- 2012**
- Piliouras, A., **Kim, W.**, Kocurek, G., Mohrig, D., and Kopp, J., 2012, Examining variability in preserved topography of linear dunes on a salt substrate: Abstract EP41B-0785 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 – 8 Dec.
- Straub, K.M., Paola, C., **Kim, W.**, and Sheets, B., 2012, Experimental investigation of sediment-dominated vs. tectonic-dominated sediment transport systems in aseismically and coseismically extensional basins (invited): Abstract T52B-06 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 – 8 Dec.
- Kim, W.**, and Kopp, J., 2012, Effects of imposed variable rates of lateral subsidence on a deltaic system (invited): Abstract EP54B-07 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 – 8 Dec.
- Kim, W.**, 2012, River bifurcation: Learning from non-bifurcating experimental channels (invited): Abstract EP53H-04 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3 – 8 Dec.
- Kopp, J., and **Kim, W.**, 2012, The effects of varying tectonic subsidence in a fluvial-deltaic system: *GSA Abstracts with Programs*. V. 44, no. 7, p. 632, Charlotte, NC, November 4 – 7 2012
- Kopriva, B., **Kim, W.**, and Buttles, J., 2012, Stratigraphic response of variable mini-basin subsidence patterns due to autogenic effects: Abstract SP17 presented at *AAPG 2012 Annual Convention and Exhibit, Long Beach, CA April 22 – 25 2012*
- 2011**
- Aronovitz, A.C., Johnson, J.P., and **Kim, W.**, 2011, The formation of experimental step-pools in relation to sediment size distribution and transport slope: Abstract EP21C-0713 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Leva Lopez, J., **Kim, W.**, and Steel, R.J., 2011, Experimental analysis of autostratigraphic controls in foreland basins: Abstract EP23A-0725 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Delbecq, K.L., Boesch, S., Johnson, J.P., and **Kim, W.**, 2011, Evaluating paleotsunami deposit models using flume experiments: Abstract EP51D-06 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Kim, W.**, 2011, Reversal in migration of gravel-sand transition: Abstract EP21B-0685 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
- Kopriva, B. and **Kim, W.**, 2011, Control of internal dynamics of salt deformation due to stratigraphic architecture: Experimental modeling: Abstract presented at 2011 GSA Annual Meeting, Minneapolis, MN, 9-12 Oct.
- Kim, W.**, Connell, S.D., Smith, G.A., Paola, C., and Steel, E., 2011, Sediment interactions in axial and transverse alluvial systems: Abstract presented at 2011 GSA Annual Meeting, Minneapolis, MN, 9-12 Oct.
- Kim, W.**, Petter, A., Fouke, B.W., Quinn, T.M., and Kerans, C., 2011, Sea-level rise, depth-dependent carbonate growth, and the paradox of drowned platforms: Abstract presented at 2011 GSA Annual Meeting, Minneapolis, MN, 9-12 Oct.
- 2010**
- Powell, E. and **Kim, W.**, 2010, Quantifying the fluvial autogenic processes: Tank Experiments: Abstract EP43F-03 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Leva Lopez, J., **Kim, W.**, and Steel, R.J., 2010, Autostratigraphic response of clinoform evolution to back-tilting subsidence: A Numerical Model: *18<sup>th</sup> International Sedimentological Congress, Mendoza, Argentina, September 26 – October 1*
- Kim, W.**, Petter, A., Straub, K., Mohrig, D., and Paola, C., 2010, Decoupling allogenic forcing from autogenic processes: Experimental stratigraphy: *Norwegian Petroleum Society 2010 Conference, Stavanger, Norway May 4 – 6 2010*
- Kim, W.**, Petter, A., Fouke, B.W., Quinn, T.M., Kerans, C., Taylor, F., Mohrig, D., and Paola, C., 2010, Decoupling allogenic forcing from autogenic processes: Clastic and carbonate experimental stratigraphy: *AAPG 2010 Annual Convention and Exhibit, New Orleans, LA April 11 – 14 2010*
- 2009**

- Kim, W.** and Powell, E., 2009, Decoupling allogenic and autogenic processes: Experimental stratigraphy: *Eos Trans. AGU*, v. 90, no. 52, Fall meet. suppl., Abstract EP53A-0609
- Straub, K.M., Paola, C., **Kim, W.**, and Sheets, B.A., 2009, Controls on steering of channels in laterally tilting basins: an experimental study: *Eos Trans. AGU*, v. 90, no. 52, Fall meet. suppl., Abstract EP53A-0612
- Petter, A.L., Mohrig, D., Carvajal, C., Steel, R.J., and **Kim, W.**, 2009, A simple method for estimating the sediment-flux histories of ancient shelf-margin successions: *Eos Trans. AGU*, v. 90, no. 52, Fall meet. suppl., Abstract EP53A-0615
- Muto, T., Furubayashi, R., **Kim, W.**, and Parker, G., 2009, Seaward protrusion of a graded channel-lobe system: 2D model experiments: *Eos Trans. AGU*, v. 90, no. 52, Fall meet. suppl., Abstract EP41A-0589
- Matin, J.M., Wickert, A.D., Sheets, B.A., Kelberer, M., **Kim, W.**, Tal, M., and Paola, C., 2009, A method to translate between short-term fluvial processes on deltas and bulk volumes of channel and overbank deposits in the stratigraphic record: *Eos Trans. AGU*, v. 90, no. 52, Fall meet. suppl., Abstract EP41A-0890
- 2007**
- Kim, W.** and Jerolmack, D.J., 2007, The pulse of calm deltas: *Eos Trans. AGU*, v. 88, no. 52, Fall meet. suppl., Abstract H54B-01
- Kim, W.**, Paola, C., Martine, J., Perlmutter, M., and Tapaha, F., 2007, Net pumping of sediment into deep water due to base-level cycling: *Annual AAPG Meeting*
- 2006**
- Kim, W.** and Paola, C., 2006, Cyclic sedimentation by linear tectonic forcing in an experimental relay ramp: *Eos Trans. AGU*, v. 87, no. 52, Fall meet. suppl., Abstract NG53A-04
- Kim, W.**, Paola, C., and Sheets, B.A., 2006, Steering of experimental channels in an active relay ramp: *17th International Sedimentological Congress*, Fukuoka, Japan, Abstract O-219
- 2005**
- Kim, W.**, Paola, C., Swenson, J., and Voller, V., 2005, Shoreline response to autogenic processes of sediment storage and release in the fluvial system: *Eos Trans. AGU*, v. 86, no. 52, Fall meet. suppl., Abstract H31A-1285
- 2004**
- Kim, W.**, Strong, N., Sheets, B., Kelberer, M., Martin, J., Paola, C., Voller, V., and Swenson, J., 2004, Autogenic Shoreline Responses to Fluvial Change: *Eos Trans. AGU*, v. 85, no. 47, Fall meet. suppl., Abstract H34C-01
- Kim, W.**, Paola, C., Voller, V., and Swenson, J., 2004, A Quantitative A/S ratio for predicting shoreline migration during eustatic base-level cycles: *Eos Trans. AGU*, v. 85, no. 47, Fall Meet. suppl., Abstract OS23C-1335
- Voller, V.R., Swenson, J.B., **Kim, W.**, Paola, C., 2004, A fixed-grip method for moving boundary problems on the earth's surface: *European Congress on Computational Methods in Applied Sciences and Engineering 2004*, In: Neittaanmaki, P. et al, (Eds.)
- 2003**
- Strong, N., Sheets, B., **Kim, W.**, Kelberer, M., and Paola, C., 2003, Efficacy of two measures of relative sea level in predicting stratal geometry and surface morphology in an experiment with varying base level: *Eos Trans. AGU*, v. 84, no. 46
- Swenson, J., Paola, C., Sheets, B., Strong, B., **Kim, W.**, and Pratson, L., 2003, Continental-margin response to sea level: Theory and experiment: *Eos Trans. AGU*, v. 84, no. 46
- 2002**
- Strong, N., Sheets, B., Kelberer, M., **Kim, W.**, and Paola, C., 2002, Evolution of valley depth and width during base-level fluctuations: *Eos Trans. AGU*, v. 83, no. 47

## SERVICES

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### DEPARTMENT/SCHOOL:

- Exam committee: University entrance exam and admission, Yonsei University, 2020 – 2022
- Advisor: Faith and Christianity, Department of Earth System Sciences, Yonsei University, since Fall 2019



- Advisor: International undergrad and graduate students, Department of Earth System Sciences, Yonsei University, since Fall 2019
- Chair: Jackson School Task Force Committee on climate and culture since Fall 2018
- Peer Teaching Evaluation Organizer: Coordinating and conducting peer teaching evaluations since 2018
- Faculty Search Committee: Hydro Search member (2017); Sedimentary Geology Search member (2018)
- Committee Member of Graduate Assembly, University of Texas at Austin since 2015: Academic subcommittee member, meeting once or twice a month to review new graduate programs at the University
- Theme (Surface and Hydrologic Processes) Representative for Admission and Award Committee, Jackson School of Geosciences since 2013
- Advisor for a campus student organization, AWAKE (Anointed Worship Awakes Koreans and Everyone) since 2012
- Invited speaker: University of Texas 2012 Honor's Colloquium (July, 2012)
- Sedimentary Geology and Stratigraphy Discipline Leader at the Department of Geological Sciences (Fall 2011 – Spring 2016)
- Tech Session Organizing Committee: Invited and host Dr. Doug Jerolmack, University of Pennsylvania (Oct, 2010) and Dr. Jim Best, University of Illinois, Urbana – Champaign (Dec, 2010)

### RESEARCH COMMUNITY:

- Organizing committee member for the 2024 Busan International Geological Congress (IGC 2024)
  - Organizing a session in 2023 Japan Geoscience Union (JpGU) 2023 “Scaled experiments in Earth surface dynamics” May. 23, 2023
  - Organizing a session in 2022 The 21<sup>st</sup> ISC International Sedimentological Congress, Beijing “Surface dynamic and stratigraphic development of fluvio-deltaic systems: Autogenesis and allogensis” Aug. 22 – 26, 2022
  - Organizing a session in 2015 AAPG Annual Convention and Exhibition “Quantitative Characterization and Modeling of Sedimentary Systems” Oral and Poster
  - Organizing a Town Hall in 2014 AGU Annual Meeting “Publishing and Sharing Earth Surface Process Data”
  - Organizing a week NSF-RCN workshop at the Utrecht University, Netherlands “Experimentalists going Dutch: Exploring the life cycle of sedimentary experiments” Year 3. Nov 4 – 7, 2014
  - Organizing a Town Hall in 2013 AGU Annual Meeting “Building a Sediment Experimentalist Network”
  - Organizing a two-day NSF-funded workshop at the University of Texas at Austin “EarthCube Domain End-User Workshop to Address Community Needs for Sharing and Managing Experimental Data and Techniques: Year 1. Experimental Stratigraphy” Dec 11 – 12, 2012
  - Organizing a Town Hall in 2012 AGU Annual Meeting “Surface Process Experiments – A Community Discussion”
  - Organizing a session in 2012 AGU Annual Meeting “Advances in Experimental Earth Surface Processes”
  - Organizing a session in 2011 GSA Annual Meeting “Sediment Transport in Modern and Ancient Environments”
  - SEPM (Society for Sedimentary Geology) Research Committee member: Reviewing 2 – 4 conference proposals annually
  - Invited member of World Delta Dialogues 2010, The America's WETLAND Foundation, New Orleans, LA Oct 16-19, 2010: Serving as a discussion panel to identify pilot projects for the Mississippi River Delta restoration and protection
  - Organizing committee member for 2008 Meetings of Young Researchers in Earth Sciences funded by NSF, New Orleans, LA May 2008
- 
- Associate Editor: Economic and Environmental Geology (March 2023 – current)
  - Associate Editor: Journal of the Geological Society of Korea (January 2020 – December 2021)
  - Associate Editor: Basin Research (June 2020 – current)
  - Associate Editor: Journal of the Geological Society of Korea (January 2020 – current)
  - Associate Editor: Journal of Geophysical Research – Earth Surface (August 2012 – December 2015)
  - Review panel for NSF (Sedimentary Geology and Paleobiology, April 2010 and October 2014)
  - Reviewer for NSF proposals (Sedimentary Geology and Paleobiology, Paleoclimate, and Marine Geology and Geophysics) and LA Board of Regents RCS and ITRS proposal

- Referee for the following journals: Nature Geoscience, Geology, Geophysical Research Letters, Sedimentology, Journal of Geophysical Research – Earth Surface, Basin Research, Journal of Hydraulic Research, Water Resources Research, Computers & Geosciences

**OUTREACH:**

- Instructor for a 1-week Austin and Florida field trip of the 9<sup>th</sup> grader GeoForce program between 2013 and 2015: GeoFORCE is a selective outreach program of the Jackson School of Geosciences, designed to encourage students from minority-serving high schools in rural South Texas and inner-city Houston to take on the challenges of a rigorous math and science curriculum, to pursue higher education in these fields, and to enter the high-tech workforce.
- Instructor for a 1-week Washington and Oregon State field trip of the 11<sup>th</sup> grader GeoForce program since 2016
- Instructor for a 1-week Austin and Texas field trip of the 12<sup>th</sup> grader GeoForce program since 2018

**TEACHING**

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**2023**

Spring: **Sedimentary Rocks (ESS3102)**: 24 students

- Overall Rating = 4.78

Spring: **Sediment Transport and Morphodynamics (ESS8105)**: 5 students

- Overall Rating = 5.0

**2022**

Spring: **Introduction of Earth System Sciences (ESS1104)**: 31 students

- Overall Rating = 4.8

Spring: **Sedimentary Rocks (ESS3102)**: 30 students

- Overall Rating = 4.82

Spring: **Stratodynamics (ESS6702)**: 11 students

- Overall Rating = 4.94

**2021**

Fall: **Sedimentary Environments (ESS4133)**: 32 students

- Overall Rating = 4.7

Fall: **Modeling of Depositional Mechanics (ESS7105)**: 7 students

- Overall Rating = 4.6

Spring: **Sedimentary Rocks (ESS3102)**: 44 students

- Overall Rating = 4.6

Spring: **Stratodynamics Seminar (ESS7702)**: 5 students

- Overall Rating = 4.7

**2020**

Fall: **Understanding of Stratigraphy (ESS3115)**: 35 students

- Overall Rating = 4.6

Fall: **Stratodynamics (ESS6702)**: 12 students

- Overall Rating = 4.7

Spring: **Introduction of Earth System Sciences (ESS1104)**: 39 students

- Overall Rating = 4.48

Spring: **Sedimentary Rocks (ESS3102)**: 44 students

- Overall Rating = 4.3

Spring: **Sediment Transport and Morphodynamics (ESS8105)**: 10 students

- Overall Rating = 4.9

**2019**

Fall: **Sedimentary Environments (ESS4133)**: 26 students

- Overall Rating = 4.6

Fall: **Stratodynamics (ESS6702)**: 7 students

- Overall Rating = 5

**2018**

- Fall: **Sedimentary Rocks (GEO 416M)**: 50 students  
 ▪ Overall Instructor Rating = 4.7, Overall Course Rating = 4.4
- Fall: **Morphodynamics (GEO 391/371T)**: 11 students  
 ▪ Overall Instructor Rating = 4.5, Overall Course Rating = 4.1
- 2017**
- Fall: **Sedimentary Rocks (GEO 416M)**: 55 students  
 ▪ Overall Instructor Rating = 4.4, Overall Course Rating = 4.2
- Spring: **Morphodynamics (GEO 391/371T)**: 11 students  
 ▪ Overall Instructor Rating = 4.5, Overall Course Rating = 4.2
- Spring: **Depositional Mechanics (GEO 291/271T)**: 13 students  
 ▪ Overall Instructor Rating = 5.0, Overall Course Rating = 4.6
- 2016**
- Spring: **Morphodynamics (GEO 391)**: 13 students (2 audit)  
 ▪ Overall Instructor Rating = 5.0, Overall Course Rating = 4.8
- 2015**
- Fall: **Sedimentary Rocks (GEO 416M)**: 89 students  
 ▪ Overall Instructor Rating = 4.6, Overall Course Rating = 4.2
- Summer: **Sedimentary Rocks (GEO f416M)**: 7 students  
 ▪ Overall Instructor Rating = 4.5, Overall Course Rating = 4.3
- 2014**
- Fall: **Morphodynamics (GEO 391)**: 13 students (1 audit)  
 ▪ Overall Instructor Rating = 4.6, Overall Course Rating = 4.4
- Summer: **Sedimentary Rocks (GEO f416M)**: 10 students  
 ▪ Overall Instructor Rating = 4.5, Overall Course Rating = 4.4
- Spring: **Sedimentary Rocks (GEO 316P)**: 145 students  
 ▪ Overall Instructor Rating = 4.0, Overall Course Rating = 3.4, Co-taught with Fisher
- 2013**
- Fall: **Morphodynamics (GEO 391)**: 20 students (1 audit)  
 ▪ Overall Instructor Rating = 4.2, Overall Course Rating = 3.9
- Summer: **Sedimentary Rocks (GEO f416M)**: 10 students  
 ▪ Overall Instructor Rating = 4.8, Overall Course Rating = 4.6
- Summer: **Sedimentary Rocks (GEO f316P)**: 18 students  
 ▪ Overall Instructor Rating = 4.3, Overall Course Rating = 3.6
- 2012**
- Fall: **Sedimentary Rocks (GEO 416M)**: 95 students  
 ▪ Overall Instructor Rating = 4.4, Overall Course Rating = 4.1
- Fall: **Morphodynamics (GEO 391)**: 13 students (2 Chinese scholars audit)  
 ▪ Overall Instructor Rating = 4.2, Overall Course Rating = 4.0
- Summer: **Sedimentary Rocks (GEO f416M)**: 18 students  
 ▪ Overall Instructor Rating = 4.8, Overall Course Rating = 3.9
- Spring: **Sedimentary Rocks (GEO 316P)**: 160 students  
 ▪ Overall Instructor Rating = 4.0, Overall Course Rating = 3.8, Co-taught with Fisher
- 2011**
- Fall: **Morphodynamics (GEO 391)**: 6 students (1 audit)  
 ▪ Overall Instructor Rating = 4.2, Overall Course Rating = 4.2
- Summer: **Sedimentary Rocks (GEO f416M)**: 13 students  
 ▪ Overall Instructor Rating = 4.0, Overall Course Rating = 3.9
- Spring: **Geomorphology and Surface Processes Seminar (GEO 291/271C)**: 8 students (1 audit)  
 ▪ Overall Instructor Rating = 4.6, Overall Course Rating = 4.0, Co-taught with Johnson
- Spring: **Sedimentary Rocks (GEO 416M)**: 107 students  
 ▪ Overall Instructor Rating = 3.2, Overall Course Rating = 3.2, Co-taught with Fisher
- 2010**
- Fall: **Morphodynamics (GEO 391)**: 10 students  
 ▪ Overall Instructor Rating = 4.1, Overall Course Rating = 3.5
- Summer: **Sedimentary Rocks (GEO f416M)**: 16 students  
 ▪ Overall Instructor Rating = 4.4, Overall Course Rating = 4.3

- Spring: **Sedimentary Rocks (GEO 416M)**: 137 students  
 ▪ Overall Instructor Rating = 3.4, Overall Course Rating = 3.3

2009

- Fall: **Morphodynamics (GEO 391)**: 11 students  
 ▪ Overall Instructor Rating = 4.3, Overall Course Rating = 4.3, Co-taught with Mohrig

## ADVISING AND RELATED STUDENT SERVICES

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### POST-DOCTORAL RESEARCHERS:

- Chenliang Wu (PhD. Rice University, US) (Fall 2020 – Spring 2023)
- Ru Wang (PhD. University of Leeds, UK) (Fall 2020 – Spring 2021)
- Jinyu Zhang (PhD. University of Texas at Austin, 2018 – 2019)
- Kimberly Miller (PhD. University of Pennsylvania, 2014 – 2015)

### PHD STUDENTS:

- Bitna Park (Spring 2020 – current)
- Minsik Kim (Spring 2020 – current)
- Haein Shin (Fall 2019 – current)
  
- Max Daniller-Varghese (PhD, Fall 2014 – Summer 2019; Co-advised with Mohrig; AGU Student Poster Award in 2017)
- Chris (Xinggang) Liu (Fall 2016 – current: Co-advised with Mohrig)
- Kristina Butler (Fall 2017 – current: Co-advised with Horton; NSF Graduate Research Fellow)
- Woong-Mo Koo (PhD, Spring 2018; Co-advised with Steel and Mohrig; Now at Korean National Oil Company)
- Valentina Rossi (PhD, Spring 2012 – Fall 2016; Co-advised with Steel; Now Postdoctoral Researcher at University of Bergen)
- Anastasia Piliouras (PhD, Fall 2011 – Spring 2016; Now Assistant Professor at Penn State University)
- Julio Leva (PhD, Fall 2010 – Spring 2014; Now Assistant Professor at Lamar University, Co-advised with Steel)

### MS STUDENTS:

- Ji Young Lee (Spring 2023 – current)
- Duhwan Keum (Fall 2022 – current)
- JaeHyung Lee (Fall 2022 – current)
- YunHyeong Lee (Spring 2022 – current)
- HyoJae Lee (Fall 2021 – current)
  
- JeongYeon Han (Spring 2020 – Fall 2021: Now PhD student at Indiana State University)
- Ryan Herring (Spring 2020 – Spring 2022: Now PhD student at Brown University)
- Brandon Minton (Fall 2014 – Summer 2016; Co-advised with Mohrig)
- Emily Chatmas (Fall 2014 – Spring 2016: Now at Peregrine Petroleum)
- Yejin Lim (Fall 2014 – Spring 2016: Now PhD student at University of Texas)
- Eunsil Jung (Fall 2014 – Spring 2016: Now PhD student at University of Texas)
- Woong-Mo Koo (MS, Fall 2013 – current; Co-advised with Steel)
- Jessica Kopp (MS, Fall 2011 – Spring 2013: Now at Shell)
- Katie Delbecq (MS, Spring 2011 – Spring 2013; Co-advised with Mohrig; Medical leave of absence for Spring 2012, switched from PhD due to her Health issue in Spring 2013: Now at Earlham College as a Teaching Professor)
- Ellen Reid (MS, Fall 2010 – Summer 2012: Now at Apache Corporation)
- Bryant Kopriva (MS, Fall 2010 – Spring 2012: Now at XTO, ExxonMobil)
- Alexander Aronovitz (MS, Fall 2010 – Spring 2012; Now at Schlumberger, Co-advised with Johnson)
- Erica Powell (MS, Spring 2010 – Spring 2011: Now at Southwestern Energy)

**UNDERGRADUATE STUDENTS:**

- Junsung Kwon (Spring 2022)
- JiYoung Lee (Spring 2022 – Fall 2022: Now MS student at Yonsei University)
- JaeHyung Lee (Spring 2021 – Fall 2021: Now MS student at Yonsei University)
- HyoJae Lee (Spring 2020 – Spring 2021: Now MS student at Yonsei University)
- Maria Paula Borja (Spring 2020 – Fall 2020)
- Marianne Coholich (Honors program, Summer 2018 – Spring 2020: Now MS student at Stanford)
- Feifei Zhao (Honors program, Spring 2018 – Spring 2020: Now PhD student at University of California, Santa Barbara)
- Jackie Rambo (Independent Research, Fall 2015 – Spring 2018: Now at Drillinginfo)
- Susannah Morey (Independent Research, Fall 2016 – Spring 2017: Now PhD student at University of Washington, Seattle)
- Julianne Scamardo (Independent Research, Spring 2016 – Spring 2017: UT Select Admission Program Awardee; Now MS student at Colorado State University)
- Calyn Jew (Independent Research, Fall 2014 – Fall 2015: Now MS student at Rice University)
- Carolina Baumanis (Independent Research, Fall 2012 – Spring 2015, Now Scientist Associate at Center for Transportation Research, Cockrell School of Engineering, UT Austin)
- Joe Salinas (Honors program, Spring 2013 – Spring 2015, Now MS at University of Florida at Gainesville)
- Greg Kline (Independent Research, Summer 2012 – Fall 2014, Now Research Engineering Associate at The Nuclear and Radiation Engineering Teaching Lab at UT Austin)
- Joey Cleveland (Independent Research; GEO 271C; Jackson Scholar, Spring 2012 – Fall 2013, Now MD program at Texas A&M)
- Brandee Carlson (Honors program, Spring 2012 – Fall 2013, Now PhD at Rice University)
- Elisabeth Steel (Independent study, Spring 2010 – Fall 2010, Now PhD at University of California – Santa Barbara)

**DISSERTATION COMMITTEE (PHD):**

Jasmin Mason (11/26/18, Mohrig), Mason Fried (4/27/18, Catania), Yang Peng (6/29/18, Steel), Mackenzie Day (3/30/17, Kocurek), Khushboo Arora (2/24/2017, Wood), Jie Xu (11/18/16, Snedden), Kealie Goodwin (7/11/16, Johnson), Rattanaporn Fongngern (6/17/16, Steel), Travis Swanson (8/3/15, Mohrig), Isaac Smith (5/2/13, Holt), Brian Kiel (5/1/13, Wood), John Shaw (4/5/13, Mohrig), Anjali Fernandes (4/10/11, Steel/Mohrig), Aymeric Peyret (11/22/11, Mohrig), Chris Mirabito (8/2/11, Dawson, ICES), Darrin Burton (4/1/11, Wood), Brandon McElroy (10/23/09, Mohrig), Ryan Ewing (10/15/09, Kocurek)

**CANDIDACY EXAM COMMITTEE (PHD):**

Eunsil Jung (11/13/17, Steel), Eric Goldfarb (11/7/17, Tisato), Hima J. Hassenruck-Gudipati (11/2/16, Mohrig), Yaser Alzayer (3/30/16, Kerans), Mason Fried (6/25/15, Catania), Jasmin Mason (3/2/15, Mohrig), Robert Dennen (4/11/14, Gardner), Yang Peng (11/24/14, Steel), Han Liu (10/17/14, Spike), Mackenzie Day (4/22/14, Kocurek), Khushboo Arora (2/4/14, Wood), Rattanaporn Fongngern (5/9/13, Steel), Kealie Goodwin (4/3/13, Johnson), Lindsay Olinde (12/1/10, Johnson), Brian Kiel (11/30/10, Wood), Peter Polito (9/14/10, Johnson), Chris Mirabito (6/17/10, Dawson, ICES), Ethan Lake (5/17/10, Cloos), John Shaw (4/26/10, Mohrig), Darrin Burton (3/4/10, Wood)

**THESIS COMMITTEE (MS):**

Mario Gutierrez (Spring 2018, Snedden), Juliana Spector (Spring 2017, Johnson), Katherine Shover (Spring 2016, Holt), Brittany Smith (4/26/14, Moffett), Mike Fairbanks (6/30/12, Fisher), Gimana Cha (11/9/11, Kangwon National U. Korea, Cheong), Yuri Kim (11/9/11, Kangwon National U. Korea, Cheong), Michael Ramirez (Allison)

**UNDERGRAD HONORS THESIS COMMITTEE:**

John Franey (Johnson), Matthew Nix (Mohrig), Arisa Ruangsirikulchai (Mohrig), Thad Ellis (Mohrig), Emma Heitmann (Breecker), Aimee Ford (Cardenas), Elizabeth Rinchart (Mohrig), Elisabeth Steel (Holt)

**INTERNATIONAL SCHOLARS:**

Jianguang Li (2022, Associate Professor, China University of Geosciences, Wuhan, China)  
Byungsun Lee (2016, Rural Research Institute in Korea)  
Vittorio Maselli (2014, ISMAR-CNR Istituto di Scienze Marine, Via Gobetti, Italy)  
Benzhong Xian (2012-2013, Associate Professor, China University of Petroleum, Beijing, China)

## RESEARCH GRANTS

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### CURRENT AND FUNDED PROJECTS:

- Korea National Research Foundation, Mid-career Research Program (Project total = \$500,000): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Effect of autogenic process on sediment transport and stratigraphic development (Project period: March 2023 – February 2028).
- Korea National Oil Corporation, Joint Research Project (Project total = \$200,000): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Stratigraphic evolution of the South-Sea Basin, Korea (Project period: May 2023 – December 2025).
- Korea Institute of Ocean Science & Technology, Joint Research Project (Project total = \$30,000): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Submarine terraces in the Dokdo volcanic seamount (Project period: April 2023 – December 2023).
- Korea Institute of Geoscience and Mineral Resources, Joint Research Project (Project total = \$100,000): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Urban Geology and Coastal Vulnerability (Project period: April 2020 – October 2023).
- Korea National Research Foundation, Mid-career Research Program (Project total = \$300,000): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Temperature effects on sediment transport and landscape changes (Project period: March 2020 – February 2023).
- Yonsei University Future-leading Research Initiative (Project total = \$150,000): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Autogenic process and allogenic forcing on sediment transport processes and stratigraphic development: Experiment (Project period: November 2019 – October 2021).
- Research Institute of Petroleum Exploration & Development, China National Petroleum Corporation (RIPED), Joint Research Project (Project total = \$220,000/ Kim = \$80,000): Co-PI – **Wonsuck Kim**: Kim's effort is 36% of project  
- Fine-grained sedimentation in lacustrine basins: insights from outcrops and laboratory flumes (Project period: July 2017 – July 2018).
- Rural Research Institute, Korea (RRI), Joint Research Project (Project total = \$22,500): Lead-PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Availability of groundwater considering natural vegetation growth in a delta (Project period: March 2016 – December 2016).
- Jackson School of Geosciences, Theme Seed Grant (Project total = \$28,810): Co-PI – **Wonsuck Kim**: Kim's effort is 50% of project  
- The effect of ice cover on delta morphology (Project period: January 2015 – December 2015).
- Jackson School of Geosciences, Theme Seed Grant (Project total = \$10,280): Lead PI – **Wonsuck Kim**: Kim's effort is 100% of project  
- Discharge and sediment supply controls on cut bank erosion and point bar deposition in meandering channels of Mars (Project period: January 2014 – December 2014).

- Jackson School of Geosciences, Theme Seed Grant (Project total = \$10,000): Lead PI – **Wonsuck Kim**: Kim’s effort is 100% of project
- Control of clinoform progradation rate on geometry of actively subsiding salt-walled minibasins (Project period: January 2014 – December 2014).
  
- National Science Foundation (Project total = \$534,126/ UT = \$321,283): Lead PI – **Wonsuck Kim** and Co-PI – Brad Murray (Duke): Kim’s effort is 60% of project
- NSF 1324114 Collaborative Research: Sea-level rise and vegetation controls on delta landform evolution: A coupled experimental and numerical modeling study (Project period: September 2013 – August 2017).
  
- National Science Foundation (Project total = \$440,559): Lead PI – **Wonsuck Kim** and Co-PIs – Leslie Hsu (Columbia) and Brandon McElroy (UWyoming): Kim’s effort is 40% of project
- NSF 1324760 RCN: Building a sediment experimentalist network (SEN) (Project period: August 2013 – July 2017).
  
- RioMar Oil Consortium (Project annually to PI Kim = \$33,000): Co-PI – **Wonsuck Kim**: Kim’s effort is 100% of project
- Experimental Stratigraphy (Project period: January 2013 – December 2019).
  
- Jackson School of Geosciences, Theme Seed Grant (Project total = \$9,000): Lead PI – **Wonsuck Kim**: Kim’s effort is 100% of project
- Experimental Meanders on Mars (Project period: January 2013 – December 2013).
  
- National Science Foundation (Project total = \$35,470): Lead PI – **Wonsuck Kim**: Kim’s effort is 100% of project
- NSF 1250525 Calling all experimentalists: A workshop to build a community network for sharing and managing experimental data and techniques – Year 1: Experimental stratigraphy (Project period: September 2012 – August 2013).
  
- National Science Foundation (Project total = \$432,749/ UT = \$51,836): PI – Zhixiong Shen (Tulane) and Co-PIs – **Wonsuck Kim** and Torbjorn Tornqvist (Tulane): Kim’s effort is 15% of project
- NSF 1148247 Collaborative Research: Continuous vs. episodic fluviodeltaic sedimentation - Implications for carbon sequestration and coastal restoration (Project period: September 2012 – August 2015)
  
- Shell Exploration & Production Tech Co. (Project total = \$907,899): PI – Gary Kocurek and Co-PIs – **Wonsuck Kim** and David Mohrig: Kim’s effort is 25% of project
- Development of the Next Generation of Aeolian Dune Stratigraphic Model with Application to the Jurassic Nophlet Sandstone (Project period: September 2011 – August 2016)
  
- National Science Foundation (Project total = \$5,000,000/ UT = \$3,020,000): PI – David Mohrig and Co-PIs – **Wonsuck Kim** and Paola Passalacqua (UT Civil Eng): Kim’s effort is 30% of the UT portion of project
- NSF 1135427 FESD Type II: A Delta Dynamics Collaboratory (Project period: December 2011 – November 2016)
  
- American Chemical Society, Petroleum Research Fund (Project total = \$100,000): Lead PI – **Wonsuck Kim**: Kim’s effort is 100% of project
- PRF# 50793-DNI8 Decoupling tectonic and autogenic controls on the development of cyclic fluvial strata: Flume experiments (Project period: January 2011 – August 2013)
  
- University of Texas Faculty Development Program, Summer Research Assignment: Lead PI – **Wonsuck Kim**
- Decoupling allogenic forcing from autogenic processes in the sedimentary record: Flume experiment (2 Months of Summer Salary, 2011)