

TIAN Y. DONG

School of Earth, Environmental, and Marine Sciences
University of Texas Rio Grande Valley (UTRGV)
tian.dong@utrgv.edu | tian-y-dong.org

Appointments

2023–present	Assistant Professor, University of Texas Rio Grande Valley (UTRGV)
2020–2022	NSF Earth Sciences Postdoctoral Fellow (EAR-PF), University of Texas at Austin
2013–2020	Graduate Research and Teaching Assistant, Rice University
2012–2013	Undergraduate Research Assistant, University of Texas at Austin

Education

2020	Ph.D. in Earth Science, Rice University, Houston, TX
2015	M.Sc. in Earth Science, Rice University, Houston, TX
2013	B.Sc. in Geological Sciences, University of Texas at Austin, TX

Peer Reviewed Publications

[Google Scholar] [Research Gate]

Published

- [12] **Dong, Tian Y.**, L. Vulis, H. Ma, A. Tejedor, and T. A. Goudge. “Apparent Hack’s law in river deltas”. In: *Science* 392.6797 (2026), pp. 493–498. [link].
- [11] C. Wu, W. Kim, S. Yang, F. Tsai, J. A. Nittrouer, **Dong, Tian Y.**, D. Keum, and K. M. Straub. “High variability in flood discharge and stage accelerates river mobility”. In: *Science Advances* 11.48 (2025), eadv7637. [link].
- [10] **Dong, Tian Y.**, J. A. Nittrouer, B. Carlson, B. McElroy, E. Il’icheva, M. Pavlov, and H. Ma. “Impacts of tectonic subsidence on basin depth and delta lobe building”. In: *Journal of Geophysical Research: Earth Surface* 128.2 (2023), e2022JF006819. [link].
- [9] T. A. Goudge, J. M. Swartz, **Dong, Tian Y.**, and D. Mohrig. “Characterizing the response of the Coastal Rio Grande to upstream damming”. In: *Geomorphology* (2023), p. 108604. [link].
- [8] C. Wu, W. Kim, R. Herring, B. T. Cardenas, **Dong, Tian Y.**, H. Ma, A. Moodie, J. A. Nittrouer, F. Tsai, and A. Li. “Lowland river sinuosity on Earth and Mars set by the pace of meandering and avulsion”. In: *Nature Geoscience* (2023), pp. 1–7. [link].
- [7] **Dong, Tian Y.** and T. A. Goudge. “Quantitative relationships between river and channel-belt planform patterns”. In: *Geology* 50.9 (2022), pp. 1053–1057. [link].
- [6] B. N. Carlson, J. A. Nittrouer, T. E. Swanson, A. J. Moodie, **Dong, Tian Y.**, H. Ma, G. C. Kineke, M. Pan, and Y. Wang. “Impacts of engineered diversions and natural avulsions on delta-lobe stability”. In: *Geophysical Research Letters* 48.13 (2021), e2021GL092438. [link].
- [5] **Dong, Tian Y.**, J. A. Nittrouer, B. McElroy, E. Il’icheva, M. Pavlov, H. Ma, A. J. Moodie, and V. M. Moreido. “Predicting water and sediment partitioning in a delta channel network under varying discharge conditions”. In: *Water Resources Research* 56.11 (2020), e2020WR027199. [link].
- [4] **Dong, Tian Y.**, J. A. Nittrouer, M. J. Czapiga, H. Ma, B. McElroy, E. Il’icheva, M. Pavlov, S. Chalov, and G. Parker. “Roles of bank material in setting bankfull hydraulic geometry as informed by the Selenga River delta, Russia”. In: *Water Resources Research* 55.1 (2019), pp. 827–846. [link].
- [3] C. Bai, B. Yu, **Dong, Tian Y.**, S. Han, J. Ge, and D. Zhu. “Wave-enhanced sediment-gravity flows in Bohai Bay lacustrine basin, eastern China”. In: *Acta Geologica Sinica-English Edition* 92.6 (2018), pp. 2416–2431. [link].

- [2] J. Pietroni, J. A. Nittrouer, S. R. Chalov, **Dong, Tian Y.**, N. Kasimov, G. Shinkareva, and J. Jarsjö. “Sedimentation patterns in the Selenga River delta under changing hydroclimatic conditions”. In: *Hydrological processes* 32.2 (2018), pp. 278–292. [link].
- [1] **Dong, Tian Y.**, J. A. Nittrouer, E. Il’icheva, M. Pavlov, B. McElroy, M. J. Czapiga, H. Ma, and G. Parker. “Controls on gravel termination in seven distributary channels of the Selenga River delta, Baikal Rift basin, Russia”. In: *Geological Society of America Bulletin* 128.7-8 (2016), pp. 1297–1312. [link].

In Review

- [3] B. Carlson, I. Overeem, **Dong, Tian Y.**, K. Anarde, L. Baker-Stahl, E. Pierce, H. Ma, and K. Potter. “Growing Greenland deltas export most sediment to deep fjords”. *in review at Communications Earth Environment*.
- [2] B. Csiti, **Dong, Tian Y.**, and T. A. Goudge. “Linking River Discharges, Basin Morphology, and Precipitation to Channel-Belt Width”. *in review at Journal of Geophysical Research: Earth Surface*.
- [1] M. Harris, B. Carlson, R. S. Vachula, A. Moodie, W. Struble, **Dong, Tian Y.**, and B. Cordova. “Sedimentary charcoal records poorly preserve the stratigraphic signal of grassland fire as informed by the 2024 Windy Deuce Fire, Texas Panhandle”. *in review at Wildfires and Geomorphology: Processes, Impacts, and Landscape Responses*.

In Prep. (Most recent draft available upon request under confidentiality; currently under revision with coauthors to be submitted by 2026)

- [4] B. Carlson, J. A. Nittrouer, **Dong, Tian Y.**, A. J. Moodie, H. Ma, and C. Wu. “Distinct patterns of channel connectivity and stratigraphy between abrupt and transitional delta avulsions”. *in revision to submit to GSA Bulletin*.
- [3] H. Ma, **Dong, Tian Y.**, J. Shaw, L. Vulis, M. Czapiga, A. Tejedor, A. J. Moodie, and E. Foufoula-Georgiou. “The Growth Law of Delta Channel Network”. *in prep*.
- [2] H. Ma, L. Vulis, J. Shaw, A. Tejedor, D. Feng, **Dong, Tian Y.**, and E. Foufoula-Georgiou. “When Delta Channel Networks Stagnate”. *in prep*.
- [1] W. Nabi, **Dong, Tian Y.**, J. L. Gonzalez, B. Carlson, K. Rutan, J. Kim, and J. A. Benavides. “Seasonal and Anthropogenic Controls on Hydrodynamics and Sediment Transport in Alluvial Ridge Basins of the Rio Grande Delta”. *in prep. for Journal of Geophysical Research: Earth Surface*.

Awards and Recognition

2024	Recognition of Compassionate Connections, Letters to a Pre-Scientist
2022	Invitation to the AGU Reviewer/Author Appreciation Reception, AGU
2020	Outstanding Graduate Student Award, Rice University
2018–2019	Mills Bennett Fellowship, Rice University
2017	Torkild Rieber Award in Earth Science, Rice University
2016–2017	Sam P. and Helen S. Worden Fellowship, Rice University

Invited Talks

***Departmental Colloquium**

2026	*Department of Civil and Environmental Engineering, University of Illinois Urbana-Champaign
2026	*Department of Earth and Planetary Sciences, University of Texas at Austin
2025	*Department of Earth and Planetary Sciences, University of New Mexico
2025	GSA Connects T188, “ <i>Geomorphology and Surface Processes Across the Solar System</i> ”
2025	*Department of Earth and Environmental Sciences, Tulane University
2024	*Department of Earth Sciences, University of Delaware
2024	From Ice Sheets to the Coast: Sea-Level Rise Impacts Workshop, University of Houston
2023	*Department of Earth Sciences, University of Delaware
2023	*School of Mathematical and Statistical Sciences, UTRGV
2022	AGU Fall Meeting EP020, “ <i>Quantifying the drivers of landscape evolution across spatial and temporal scales</i> ”
2022	*School of Earth, Environmental, and Marine Sciences, UTRGV

2022	*School of the Environment, Washington State University
2021	World Large River and Delta Systems Source-to-Sink Webinar, NC State University [link]
2021	*University of Texas Institute for Geophysics, University of Texas at Austin [link]

Funding

Awarded:

2025-2027	co-PI (transferred), NSF, \$49,512 [link], award share: 9% “ <i>RAPID: Collecting post-hurricane Helene sediment samples in the Congaree National Park, South Carolina, to constrain floodplain-wide deposition of sand and mud</i> ”
2024-2026	co-PI , NSF, \$16,742 [link], award share: 100% “ <i>Collaborative Research: RAPID: Investigating the magnitude and timing of post-fire sediment transport in the Texas Panhandle</i> ”
2024-2026	PI (transferred), NSF, \$199,806 [link], award share: 100% “ <i>HSI Pilot Project: Applying a Research-Based Learning Approach to Enhance Biomanufacturing Skills</i> ”
2023-2026	PI , NASA, \$1,200,000 [link], award share: 44% “ <i>MUREP MCA: Remote-sensing and Analytics for Integrating Science Education with NASA SMD to Strengthen Student Research Capacity at MSI (RAISE)</i> ”
2023-2026	PI , U.S. Department of Energy, \$750,000 [link], award share: 39% “ <i>FAIR: Evaluating water, sediment, and nutrient transport rates and accumulation patterns in alluvial ridge basins between the abandoned river channels (Resacas) of the Rio Grande Delta</i> ”
2023-2027	PI , U.S. Geological Survey, \$300,000 [link], award share: 100% “ <i>Geomorphic change detection along the U.S.-Mexico border in south Texas within the Lower Rio Grande Valley (LRGV)</i> ”
2022-2026	PI , University of Texas System Rising STAR Faculty Grant, \$300,000, award share: 100%
2020-2022	PI , NSF, \$174,000 [link], award share: 100% “ <i>EAR-PF: Using distributions of channel geometry and channel belt properties to distinguish meandering and braided fluvial deposits in the rock record</i> ”

Pending:

2027-2031	PI , NSF, \$466,556, award share: 100% “ <i>CAREER: Aeolian Reworking of River Delta Surface Topography and Avulsion Potential</i> ”
2027-2030	Key Personnel , U.S. Department of Justice, \$1,439,524, award share: 5% “ <i>TAFOS: A Cross-Sequential Study of Post-mortem Interval Estimation</i> ”
2027-2029	co-PI , NSF, \$163,354, award share: 100% “ <i>Collaborative Research: Impacts of large-scale base level fluctuations on carbon burial efficiency in river deltas</i> ”
2026-2030	co-PI , U.S. Department of Agriculture, \$500,000, award share: 20% “ <i>Acquisition of Agri-GACSI: A Shared-Use GPU-Enhanced Computing and Simulation Instrumentation for Food and Agricultural AI-enabled and Data-driven Science Research at The University of Texas Rio Grande Valley</i> ”
2026-2029	co-PI , NASA, \$1,499,999, award share: 35% “ <i>PACE-UAM Hub: Regional Workforce Pathways in Composite Manufacturing for Urban Air Mobility through Career & Technical Education and Experiential Learning</i> ”
2026-2028	co-PI , NASA, \$999,999, award share: 40% “ <i>MUREP M-STAR: AI-Assisted Robotic Surface Infrastructure Platform for Lunar and Martian Additive Manufacturing and Operation at UTRGV</i> ”
2026-2028	co-PI , Alfred P. Sloan Foundation, \$250,000, award share: 50% “ <i>South Texas Earth System Data Science Pathways to STEM Graduate Education</i> ”
2026-2027	PI , U.S. Geological Survey, \$79,392, award share: 100%

“Mapping and identification of Geomorphic features and Vegetation coverage along the U.S.-Mexico border in South Texas, within the Lower Rio Grande Valley (LRGV)”

Mentoring Experience

Current Lab Members as Primary Mentor (5 people):

– Staff –

2025-present Deepali Singh, Postdoctoral Fellow (co-mentor), UTRGV
2024-present Esmeralda Mendez, Program Coordinator, UTRGV

– Graduate Students –

2026-present Naydelyn Nunez, MS, UTRGV
2025-present Annette Obregon, MS, UTRGV
2025-present Andrew Ward, MS, UTRGV

Past Members from UTRGV:

– Postdocs –

2026 Olagoke Daramola, To be Assistant Professor, Kennesaw State University
2024-2025 Haiqing Xu, Now Assistant Professor, University of Nevada, Las Vegas

– Graduate Students –

2024-2026 Aleen Pertuz Paz, To be PhD Student, Virginia Tech
2024-2026 Ana Y. Casillas Rodriguez, now Hydrologist, Texas Commission on Environmental Quality
2024-2026 Waqid Nabi, To be PhD student, Indiana University Bloomington
2024-2026 Kynan Rutan, To be Geotech, U.S. Army Corps of Engineers

– Visiting Students –

2024-2025 Bence Csiti, Now PhD student, Umeå University

– Undergraduate Students –

2025-2026 Natalie Gonzales, To be PhD student, Louisiana State University
2023-2026 Sebastian Lopez, To be PhD student, University of Texas at Austin
2023-2025 Celeste Alvarez, now Comprehensive Planner, Langford Community Management Services

Committee Member

– UTRGV –

2026-present Syed Muhammad Fahad Abdullah, PhD in Computer Science with Interdisciplinary Applications
2026-present Andrea Aldaba, MS in Biochemistry and Molecular Biology
2024-present Ilankuzhali Elavarasan, MS in Chemistry
2023-present Bridgett Collis, MS in OCES
2024-2026 Sk Taufiqul Islam, MS in Ocean, Coastal, and Earth Sciences (OCES)
2024-2025 Mohammad Sadman Alam, MS in OCES

– External –

2023-2024 Caroline Mandujano, MS, Geology, University of Houston
2023-2024 Samantha Baker, MS, Geology, University of Houston
2023-2024 Nilay Gungor, MS, Geology, University of Houston
2023-2024 Sara Rojas, MS, Geophysics, University of Houston

Mentee Honors

Postdocs

2025 Deepali Singh, NASA Early Career Collaboration Award, \$4,975

Students

Geological Society of America (GSA):

– GSA Graduate Student Research Grants –

2026 Annette Obregon, \$2,600
2025 Ana Y. Casillas Rodriguez, \$2,934

2025	Waqid Nabi, \$2,871 – <i>GSA Travel Award</i> –
2025	Aleen Pertuz Paz, \$300
2025	Kynan Rutan, \$300
2025	Waqid Nabi, \$300
2025	Celeste Alvarez, \$300
	<i>Undergraduate Oral Presentation Award</i>
2025	Celeste Alvarez, \$250
	<i>NSF Graduate Research Fellowship Program (GRFP):</i>
2026	Natalie Gonzales, Honorable Mention
	<i>Others Sources:</i>
2026	Andrew Ward, Outstanding Poster Presentation, COS STEM conference, UTRGV
2026	Ana Y. Casillas Rodriguez, Outstanding Oral Presentation, COS STEM conference, UTRGV
2025	Ana Y. Casillas Rodriguez, Graduate Scholarships for Master’s and Doctoral Studies in Sciences and Humanities Abroad, Mexico, Monthly Stipend: \$1,100, Health Insurance (Annually): \$715, Tuition (Annually): \$4,463
2025	Aleen Pertuz Paz, Jones-Amsbury Research Grant, South Texas Geological Society, \$2,000
2024, 2025	Sebastian Lopez, RTX Travel Awards, University of Texas at Austin, each year: \$1,000
	Teaching Experience
	– <i>Graduate Courses</i> –
Fall 2026	EEMS 6100 Systems Science and Application
Fall 2024	GEOL 5370 Topics in Geology: Mechanics of Sediment Transport, UTRGV
Fall odd 2023-present	EEMS 6310 Coastal and Deltaic Processes, UTRGV
	– <i>Undergraduate Courses</i> –
Spr. even 2024-present	GEOL 3401 Geomorphology, UTRGV
Spr. odd 2023-present	GEOL 1403 Physical Geology, UTRGV
	Service and Outreach
	University Service
2026-present	<i>Member</i> , School of Earth, Environmental, and Marine Sciences PhD Committee (<i>designing the first PhD degree for the department</i>), UTRGV
2025-present	<i>Chair</i> , Departmental Seminar Committee (<i>founding the first seminar series</i>), School of Earth, Environmental, and Marine Sciences, UTRGV
2023-present	<i>Advisor</i> , Environmental Science Undergraduate Advising Faculty, UTRGV
2023-present	<i>Ad-Hoc Member</i> , ranging from updating degree curriculum to reviewing annual evaluation documents, School of Earth, Environmental, and Marine Sciences, UTRGV
2026	<i>Member</i> , School of Earth, Environmental, and Marine Sciences Lecturer Search Committee, UTRGV
2025	<i>Member</i> , School of Earth, Environmental, and Marine Sciences Tenure-Track Search Committee, UTRGV
2025, 2026	<i>Poster Judge</i> , College of Sciences STEM Research Conference, UTRGV
2024	<i>Interviewee</i> , NASA Solar System Ambassador Series, UTRGV [link]
2023-2025	<i>Member</i> , Earth and Environment Science Curriculum (EES) committees, UTRGV
2023-2024	<i>Member</i> , School of Earth, Environmental, and Marine Sciences Director Search Committee, UTRGV
	Professional Service
2023-present	<i>Ad Hoc Reviews</i> : NSF, American Chemical Society (ACS), NASA
2021-present	<i>Peer Reviews</i> , see verified reviews here: [Publons]

2025	<i>Panelist</i> , NSF GRFP program
2025	<i>Panelist</i> , NSF EAR program
2021	<i>Panelist</i> , NASA ROSES 2020 program
2021-2024	<i>OSPA Judge</i> , AGU Fall Meeting

Conference Service

2025-2026	<i>Short courses organizer</i> , 2025 GSA Tri-section meeting, Memphis, TN
2022-2024	<i>Convener</i> , AGU Fall Meeting Sessions, "Earth and Planetary Surface Processes General Contributions"
2022	<i>Convener</i> , AGU Fall Meeting Session EP026, "The Morphodynamic Trinity: Linkages among fluid flow, sediment transport, and morphology in fluvial systems across scales", Chicago, IL
2019	<i>Convener</i> , GSA Fall Meeting Session T8, "Statistical and Mathematical Approaches to Understanding Surface Processes and Stratigraphy", Phoenix, AZ

Outreach

2024-present	<i>Professional Outreach Lead</i> , South Texas Space Science Institute, UTRGV
2026	<i>Attendee</i> , Edinburg CISD Career and Technical Education Annual Advisory Meeting
2024	<i>Interviewee</i> , South Texas ISD Preparatory Academy, UTRGV
2023-2024	<i>Pen Pal</i> , Letters to a Pre-Scientist, UTRGV
2022	<i>Presenter</i> , JSG Around the World Seminar, University of Texas at Austin

Professional Development

2024	CITI Program: Social Behavioral Research Investigators and Key Personnel, UTRGV
2024	CITI Program: Social and Behavioral Responsible Conduct of Research Course, UTRGV
2024	Faculty Search Committee and Equality Opportunity Liaison Training, UTRGV
2023	NSF-HSI Improving Undergraduate STEM Education Program, UTRGV
2022	Community Surface Dynamics Modeling System (CSDMS) Spring School, CU Boulder
2022	Mentoring Pods Program, AAPI in Geosciences
2021	Earth 4D Trainee Day, Canadian Institute for Advanced Research
2021	Bystander Intervention Training, University of Texas at Austin
2021	Unlearning Racism in Geoscience, University of Texas at Austin

Field Experience

2024–present	Bahia Grande, Texas, USA
2026	Congaree River, South Carolina, USA
2024–2025	McBride Canyon, Texas, USA
2023	Kangerlussuaq Fjord Delta, Greenland
2022	Trinity River, Texas, USA
2020, 2021	Pedernales River, Texas, USA
2013, 2014, 2016, 2018	Selenga River delta, Russia
2016, 2017, 2018	Yellow River delta, China
2013, 2014, 2016, 2017	Brazos Delta, Texas, USA

Other Publications

Selected Conference Abstracts and Publications

- * UTRGV Students; $n = 14$
- ‡ UTRGV Postdoc and Staff; $n = 6$
- + External Students; $n = 4$

[59] *. A. Y. Casillas Rodriguez, **Dong, Tian Y.**, H. Xu, J. Benavides, and S. Dee. "Spatiotemporal Evolution of Flow Decline and Water Consumption in a Highly Regulated Transboundary River: The Lower Rio Grande/Bravo". In: *EGU 26 General Assembly*. 2026, EGU26–15748. [link].

- [58] **Dong, Tian Y.**, L. M. Vulis, H. Ma, A. Tejedor, and T. A. Goudge. “Apparent Hack’s Law in River Deltas”. In: *EGU 26 General Assembly*. EGU26-22156. 2026. [link].
- [57] **Dong, Tian Y.**, L. M. Vulis, H. Ma, A. Tejedor, and T. A. Goudge. “Apparent Hack’s Law in River Deltas”. In: *11th IAG International Conference on Geomorphology*. 04B. 2026. [link].
- [56] J. Kim, M. A. Sadman, M. Hwangbo, **Dong, Tian Y.**, and J. Parsons. “Stoichiometric shifts in nutrient limitation across freshwater coastal wetlands and hypersaline systems in South Texas”. In: *Ocean Science Meeting 2026*. 2026, CB14A–0665. [link].
- [55] j. D. Singh, E. Camprubi, and **Dong, Tian Y.** “Experimental Constraints on Organic Molecule Evolution under Simulated Martian Surficial Conditions”. In: *AbSciCon 2026*. 2026, pp. 414–05. [link].
- [54] *. C. Alvarez, **Dong, Tian Y.**, A. Y. Casillas Rodriguez, J. L. Gonzalez, A. Gunn, and B. N. Carlson. “Spatial Distribution, Textural Characterization, And Preliminary Chronology Of The Stabilized Lunette Dunes (Lomas) In The Rio Grande Delta, Texas, Usa And Tamaulipas, Mexico”. In: *GSA Connects South-Central Section 2025*. 2025, pp. 17–8. [link].
- [53] *. A. Y. Casillas Rodriguez, **Dong, Tian Y.**, J. Benavides, and S. Dee. “From Grande to Chico: 125 Years of Human-Driven Water Discharge Decline in the Lower Rio Grande/Bravo”. In: *AGU Fall Meeting 2025*. 2025, H23T–1502. [link].
- [52] **Dong, Tian Y.**, L. M. Vulis, H. Ma, A. Tejedor, and T. A. Goudge. “Apparent Hack’s Law in River Deltas”. In: *AGU Fall Meeting 2025*. 2025, EP41D–1836. [link].
- [51] **Dong, Tian Y.**, L. M. Vulis, H. Ma, A. Tejedor, and T. A. Goudge. “Apparent Hack’s Law in River Deltas”. In: *GSA Connects 2025*. 237-3. 2025. [link].
- [50] +. M. Harris, B. Carlson, A. J. Moodie, **Dong, Tian Y.**, R. Vachula, W. Struble, and B. Cordova. “Sedimentary charcoal records poorly preserve the stratigraphic signal of grassland fire as informed by the 2024 Windy Deuce Fire, Texas Panhandle”. In: *AGU Fall Meeting 2025*. 2025, PP21B–01. [link].
- [49] +. E. Klang, A. Narhi, B. Carlson, **Dong, Tian Y.**, J. L. Gonzalez, A. Ward, C. Alvarez, A. Gunn, and P. C. Copeland. “Wind-Driven Sediment Transport and Landform Development on the Rio Grande Deltaic Plain”. In: *GSA Connects 2025*. 40-3. 2025. [link].
- [48] *. S. Lopez, **Dong, Tian Y.**, A. Zaki, T. A. Goudge, J. Benavides, J. L. Gonzalez, and J. M. Swartz. “Reconstruction of Holocene Rio Grande Delta Avulsions using a Relative Age Model of the Abandoned Channel Belts”. In: *AGU Fall Meeting 2025*. 2025, EP21C–1623. [link].
- [47] j. E. Mendez, **Dong, Tian Y.**, C.-L. Cheng, and E. Pereira. “Enhancing Research Capacity and Career Readiness in Earth and Environmental Sciences Using Data Analytics and Remote Sensing Data at an MSI”. In: *AGU Fall Meeting 2025*. 2025, ED31G–0571. [link].
- [46] *. W. Nabi, **Dong, Tian Y.**, K. Rutan, J. A. Benavides, J. Kim, J. L. Gonzalez, and B. Carlson. “Modern Water and Sediment Transport Patterns in Alluvial Ridge Basins of the Rio Grande Delta, TX”. In: *AGU Fall Meeting 2025*. 2025, EP33C–1754. [link].
- [45] *. W. Nabi, **Dong, Tian Y.**, K. Rutan, J. A. Benavides, J. Kim, J. L. Gonzalez, and B. Carlson. “Modern Water and Sediment Transport Patterns in Alluvial Ridge Basins of the Rio Grande Delta, TX”. In: *GSA Connects 2025*. 114-1. 2025. [link].
- [44] *. A. Pertuz Paz and **Dong, Tian Y.** “Morphological Evolution of a Flood-Tidal Delta in a Tidal Lake (Bahia Grande) of the Coastal Rio Grande, TX, USA”. In: *AGU Fall Meeting 2025*. 2025, EP33C–1748. [link].
- [43] *. A. Pertuz Paz and **Dong, Tian Y.** “Morphological Evolution of a Flood-Tidal Delta in a Tidal Lake (Bahia Grande) of the Coastal Rio Grande, TX, USA”. In: *GSA Connects 2025*. 290-2. 2025. [link].
- [42] *. K. Rutan, **Dong, Tian Y.**, W. Nabi, J. L. Gonzalez, and K. William. “Long-Term Sedimentation Rates and Patterns of Alluvial Ridge Basins (Esteros) in the Rio Grande Delta, US, and Mexico”. In: *GSA Connects 2025*. 237-1. 2025. [link].
- [41] j. D. Singh, E. Camprubi, and **Dong, Tian Y.** “Experimental Exploration of Geochemical Diagenesis on Biogenic Organics under Martian Surficial Conditions”. In: *AGU Fall Meeting 2025*. 2025, P11F–2216. [link].

- [40] *. A. Ward, **Dong, Tian Y.**, C. Alvarez, J. L. Gonzalez, B. Carlson, and A. Gunn. “Geomorphology and Preliminary Chronology of the Stabilized Lunette Dunes (Lomas) in the Rio Grande Delta, south Texas, USA, and northern Tamaulipas, Mexico”. In: *AGU Fall Meeting 2025*. 2025, EP31D–1685. [link].
- [39] j. H. Xu, **Dong, Tian Y.**, D. J. Dean, J. B. Sankey, T. A. Goudge, and A. Casillas Rodriguez. “Damming and Water Use Increase Flood Risk in the Lower Rio Grande”. In: *AGU Fall Meeting 2025*. 2025, EP31E–1709. [link].
- [38] j. H. Xu, **Dong, Tian Y.**, D. J. Dean, J. B. Sankey, T. A. Goudge, and A. Y. Casillas Rodriguez. “Damming and Water Use Increase Flood Risk in the Lower Rio Grande”. In: *GSA Connects 2025*. 222-1. 2025. [link].
- [37] *. C. Alvarez, **Dong, Tian Y.**, A. Casillas, and J. L. Gonzalez. “Spatial Distribution And Planform Characteristics Of Clay Dunes (Lomas) In The Rio Grande Delta Across Texas, USA And Tamaulipas, Mexico”. In: *GSA Connects 2024*. 2024, pp. 40–2. [link].
- [36] B. Carlson, I. Overeem, K. Anarde, **Dong, Tian Y.**, B. Gyawali, L. Baker-Stahl, and E. Pierce. “Efficient sand transport from the delta front to deep water at a prograding Arctic delta”. In: *AGU Fall Meeting 2024*. 2024, EP22A–03. [link].
- [35] B. Carlson, I. Overeem, N. Gungor, K. Anarde, and **Dong, Tian Y.** “Deltaic channel migration and progradation despite efficient coarse sediment transport to deep water”. In: *Ocean Sciences Meeting 2024*. 2024, CP12A–03. [link].
- [34] *. A. Y. Casillas Rodriguez and **Dong, Tian Y.** “The Anthropogenic Impacts On The Water Discharge Balance Of The Lower Río Grande/Bravo Since the 19th Century”. In: *AGU Fall Meeting 2024*. 2024, H33O–1148. [link].
- [33] **Dong, Tian Y.**, J. A. Nittrouer, B. Carlson, B. McElroy, E. Il’icheva, M. Pavlov, and H. Ma. “Impacts of tectonic subsidence on basin depth and delta lobe building”. In: *GSA Fall Meeting 2024*. 2024, pp. 237–14. [link].
- [32] H. Ma, L. Vulis M., J. Shaw, A. Tejedor, **Dong, Tian Y.**, D. Feng, and F.-G. Efi. “Impact of a Warming Climate on the Distributary Channel Network of Arctic Deltas”. In: *AGU Fall Meeting 2024*. 2024, EP24A–04. [link].
- [31] *. W. Nabi, **Dong, Tian Y.**, K. Rutan, J. A. Benavides, J. Kim, and J. L. Gonzalez. “Modern Water and Sediment Transport Patterns in Alluvial Ridge Basins of the Rio Grande Delta, South Texas, USA”. In: *AGU Fall Meeting 2024*. 2024, EP11C–1272. [link].
- [30] *. K. Rutan, **Dong, Tian Y.**, W. Nabi, and J. L. Gonzalez. “ong-Term Sedimentation Patterns and Rates in Alluvial Ridge Basins (Esteros) of the Rio Grande Delta, South Texas, USA”. In: *AGU Fall Meeting 2024*. 2024, EP41E–1261. [link].
- [29] j. H. Xu, **Dong, Tian Y.**, T. A. Goudge, J. B. Sankey, and D. J. Dean. “Measuring Gully Erosion Along the Lower Rio Grande (US and Mexico) Using Lidar-Derived Digital Elevation Model”. In: *AGU Fall Meeting 2024*. 2024, EP43C–1305. [link].
- [28] S. Baker, B. Carlson, B. Gyawali, and **Dong, Tian Y.** “Temporary Sediment Storage in Proglacial Lakes Near Kangerlussuaq, Greenland”. In: *AGU Fall Meeting 2023*. 2023, EP23C–195. [link].
- [27] **Dong, Tian Y.** “Understanding water and sediment dispersal at the Selenga Delta across scales”. In: *International Conference on Transboundary Catchment Erosion and Pollution Problems*. 2023, p. 45. [link].
- [26] **Dong, Tian Y.**, L. Vulis, A. Tejedor, H. Ma, and T. A. Goudge. “The Scaling regimes of distributary delta network”. In: *International Conference on Fluvial Sedimentology 2023*. 2023, p. 77. [link].
- [25] **Dong, Tian Y.**, L. M. Vulis, A. Tejedor, H. Ma, and T. A. Goudge. “The Scaling Regimes of Distributary Delta Networks”. In: *AGU Fall Meeting 2023*. 2023, EP41C–2338. [link].
- [24] +. N. Gungor, B. Carlson, K. Anarde, and **Dong, Tian Y.** “Proglacial Delta-Front Sediment Transport in West Greenland”. In: *AGU Fall Meeting 2023*. 2023, EP31C–2094. [link].
- [23] H. Ma, L. M. Vulis, J. Shaw, A. Tejedor, **Dong, Tian Y.**, M. Czapiga, A. J. Moodie, D. Feng, and E. Foufoula-Georgiou. “Growing or Stagnant? Predict the kinematic status of a deltaic distributary channel network with a single hydrodynamic variable”. In: *AGU Fall Meeting 2023*. 2023, EP32B–02. [link].
- [22] +. C. Mandujano, B. Carlson, **Dong, Tian Y.**, and B. Gyawali. “Source to Sink Relationships Between Grain Size and Channel Dynamics in Kangerlussuaq, Greenland”. In: *AGU Fall Meeting 2023*. 2023, EP53C–1682. [link].
- [21] B. Chapa, **Dong, Tian Y.**, and T. A. Goudge. “Characterizing The Relationships Between Channel-Belt Planform Patterns And Drainage Basin Characteristics”. In: *GSA Connects 2022* 54 (2022), p. 382521. [link].

- [20] **Dong, Tian Y.**, T. A. Goudge, and B. A. Chapa. “Using channel-belt planform patterns to reconstruct river channel patterns and drainage basin characteristics (Invited)”. In: *2022 AGU Fall Meeting*. 2022, EP16B–03. [link].
- [19] B. Carlson, M. Pan, J. A. Nittrouer, T. Swanson, A. J. Moodie, **Dong, Tian Y.**, H. Ma, and G. C. Kineke. “Antecedent channel bed elevation dictates stability of delta lobes after avulsions and diversions”. In: *AGU Fall Meeting 2021*. 2021, EP51C–01. [link].
- [18] **Dong, Tian Y.** and T. A. Goudge. “Characterizing the relationship between river branch number and water discharge using distributions of channel belt properties”. In: *AGU Fall Meeting 2021*. 2021, H15M–1192. [link].
- [17] **Dong, Tian Y.**, J. Nittrouer, B. Carlson, B. McElroy, E. Il’icheva, M. Pavlov, and H. Ma. “Impacts of tectonic subsidence and variable basin depth on delta lobe building as informed by the Selenga River delta, Lake Baikal, Russia”. In: (2021), EP51C–06. [link].
- [16] C. Wu, W. Kim, A. J. Moodie, B. T. Cardenas, R. Herring, **Dong, Tian Y.**, H. Ma, F. T. Tsai, A. Li, and J. A. Nittrouer. “Pace of Meandering and Avulsion Set River Sinuosity near Coast on Earth and Mars”. In: *AGU Fall Meeting 2021*. 2021, EP31A–07. [link].
- [15] B. Carlson, J. A. Nittrouer, A. J. Moodie, E. A. Barefoot, and **Dong, Tian Y.** “Stratigraphy of abandoned deltaic distributary channels and implications for assessing avulsion style”. In: *AGU Fall Meeting 2020*. 2020, EP064–06. [link].
- [14] **Dong, Tian Y.** and T. A. Goudge. “Quantifying the distributions of channel geometry and channel belt properties for single-thread and braided rivers”. In: *AGU Fall Meeting 2020*. 2020, EP015–05. [link].
- [13] C. S. Hibbitts, **Dong, Tian Y.**, and T. A. Goudge. “Quantitative comparison between the probability distribution of channel belt properties on Earth and Mars”. In: *GSA Connects 2020* 52.6 (2020). [link].
- [12] E. Il’icheva, M. Pavlov, B. McElroy, J. A. Nittrouer, and **Dong, Tian Y.** “Formation of the floodplains of the Selenga River delta”. In: *Geography and Natural Resources* 5 (2020), pp. 113–119. [link].
- [11] H. Ma, J. Shaw, **Dong, Tian Y.**, M. J. Czapiga, and C. Cathcart. “Progradation and termination of subaerial river-dominated delta networks”. In: *AGU Fall Meeting 2020*. 2020, EP045–06. [link].
- [10] M. Pavlov, E. Ilicheva, D. Kobylkin, B. McElroy, J. A. Nittrouer, and **Dong, Tian Y.** “Radiocarbon dating of lake bottom sediments and river bank sections of the Selenga River delta”. In: *Environmental transformation and sustainable development in the Asian region*. 2020, p. 118. [link].
- [9] C. Wu, A. J. Moodie, **Dong, Tian Y.**, A. Li, F. T. Tsai, H. Ma, and J. A. Nittrouer. “Spatial Variability in River Sinuosity across the Backwater Regime”. In: *AGU Fall Meeting 2020*. 2020, EP004–0002. [link].
- [8] **Dong, Tian Y.**, J. A. Nittrouer, B. J. McElroy, E. Il’icheva, M. Pavlov, H. Ma, and A. J. Moodie. “Practical framework for predicting water and sediment partitioning in a delta under varying discharge conditions”. In: *AGU Fall Meeting 2019*. 2019, EP32A–02. [link].
- [7] J. A. Nittrouer, **Dong, Tian Y.**, and B. McElroy. “Stratomorphodynamics of the Selenga River Delta, Lake Baikal: the Premier Modern System for Investigating Autogenic and Allogenic Influences on Stratigraphy”. In: *The 11th Symposium on River, Coastal and Estuarine Morphodynamics*. 2019, p. 22. [link].
- [6] **Dong, Tian Y.**, J. A. Nittrouer, B. J. McElroy, E. Il’icheva, and M. Pavlov. “Evaluating delta lobe evolution from the tectonically active Selenga River delta: a case study of auto and allogenic controls on sedimentation patterns”. In: *AGU Fall Meeting 2018*. 2018, EP31D–2385. [link].
- [5] **Dong, Tian Y.**, J. A. Nittrouer, B. J. McElroy, H. Ma, M. J. Czapiga, E. Il’icheva, M. Pavlov, and G. Parker. “Length scale hierarchy and spatiotemporal change of alluvial morphologies over the Selenga River delta, Russia”. In: *2017 AGU Fall Meeting*. 2017, EP21B–1847. [link].
- [4] J. A. Nittrouer and **Dong, Tian Y.** “Sediment Dispersal on the Topset of a Tectonically Active Shelf-edge Delta: an Interplay Between Sediment Supply and Subsidence, as Demonstrated for the Selenga River, Lake Baikal, Russia”. In: *2017 AGU Fall Meeting*. 2017, EP13D–01. [link].
- [3] **Dong, Tian Y.**, J. A. Nittrouer, M. J. Czapiga, H. Ma, B. J. McElroy, E. Il’icheva, M. Pavlov, and G. Parker. “The signature of bankfull hydraulic conditions reflected by properties of the channel bank: a case study from the Selenga River delta, Lake Baikal, Russia”. In: *2016 AGU Fall Meeting*. 2016, EP53C–0982. [link].

- [2] **Dong, Tian Y.**, J. A. Nittrouer, B. J. McElroy, M. J. Czapiga, E. Il'icheva, M. Pavlov, and G. Parker. "Sediment transport dynamics linked to morphological evolution of the Selenga River delta, Lake Baikal, Russia". In: *2014 AGU Fall Meeting*. 2014, EP41A–3508. [link].
- [1] **Dong, Tian Y.**, E. Il'icheva, J. A. Nittrouer, and M. Pavlov. "Morphology and sediment transport dynamics of the Selenga River delta, Lake Baikal, Russia". In: *2013 AGU Fall Meeting*. 2013, EP31A–0844. [link].