

Mei Liu

Department of Earth and Atmospheric Sciences, 402-613-0260, mliu30@uh.edu

Education

Ph.D. in Geology , University of Houston	2018- Present
Advisor: Dr. Paul Mann	GPA: 3.33/4.0
M.S. in Geology , University of Nebraska–Lincoln	2018
Advisor: Dr. Irina Filina	GPA: 3.7/4.0
B.S. in Geology , Minor in Math, University of Nebraska–Lincoln	2016
	Major GPA: 3.3/4.0, Minor GPA: 4.0/4.0

Research

Ph.D. dissertation	2018-2020
<ul style="list-style-type: none"> • Chapter 1: Mesozoic marginal rift and SDR structures in the northeastern Gulf of Mexico from integration of seismic and potential fields data • Chapter 2: Crustal architecture of the late Jurassic, short ridge-long-fracture-zone spreading center and its flanking oceanic crust in the western Gulf of Mexico • Chapter 3: Using full tensor gravity data to map the bottom of salt canopy in the western Gulf of Mexico 	
Master's thesis: <i>Integrated Geophysical Analysis in the Northeastern Gulf of Mexico</i>	2017-2018
<ul style="list-style-type: none"> • Delineated tectonic zones and derived physical properties of subsurface rocks • Mapped seaward dipping reflectors and segments of extinct spreading center with transform faults • Identified two spreading episodes of the GOM and the reorganization of spreading center with different spreading rates, crustal thicknesses, and crustal densities 	
Seismic activity during UNL football games	Fall 2016
<ul style="list-style-type: none"> • Collected and analyzed seismography data correlating with football game events 	
Research Assistant, petrographic study of the UNL petrology collections	Spring 2016
<ul style="list-style-type: none"> • Identified and catalogued igneous and metamorphic mineral samples using thin section microscopy • Prepared mineral samples for microscopic analysis 	

Field & Professional Experiences

Emperor Seamount Chain, <i>R/V Marcus Langseth</i> , Science team member	April-June 2019
<ul style="list-style-type: none"> • Shipboard processing of multi-channel seismic reflection and swath bathymetry data • Joined OBS recovery, XBT, and operated watchstanding for 40 days 	
Graduate Teaching Assistant for physical geology course	Spring 2018
<ul style="list-style-type: none"> • Assisted with exam proctoring, field trips, and grading for physical geology course • Tutored students with class materials 	
Six-week field camp at Vondra Field Station, Shell, WY	Summer 2015
<ul style="list-style-type: none"> • Mapped structures of various geological formations • Evaluated reservoir potential 	
Summer internship at CNPC Great Wall Drilling Company, Beijing, China	Summer 2015
<ul style="list-style-type: none"> • Used <i>Petrel</i> software to build well database and model 	

- Analyzed borehole data of wells in the Melut Basin

Peer Reviewed Publications

- Liu, M.,** Filina, I., and Mann P., 2019. “Crustal structure of Mesozoic rifting in the northeastern Gulf of Mexico from the integration of seismic and potential fields data”, *Interpretation, in press*
- Filina, I., **Liu, M.,** and Beutel, E.K., 2019. “Evidence of ridge propagation in the eastern Gulf of Mexico from integrated analysis of gravity and seismic data”, *Tectonophysics, under review*

Conference Presentations

- Liu, M.,** Filina, I., Beutel, E.K., and Beth, H., 2018. “Two Extinct Spreading Centers in the Eastern Gulf of Mexico from Integrated Geophysical Analysis”, AGU Fall Meeting, Washington DC
- Liu, M.,** 2018. “New Potential Fields Constraints on Ridge Reorganization of Late Jurassic Oceanic Spreading in the Eastern Gulf of Mexico”, Sheriff Lecture, Houston Geological Society, Houston, TX
- Liu, M.** and Filina, I., 2018. “Potential Fields Modeling in the Northeastern Gulf of Mexico”, AAPG ACE, Salt Lake City, UT
- Liu, M.** and Filina, I., 2017. “Variation of Oceanic Crust in the Northeastern Gulf of Mexico from Integrated Geophysical Analysis”, AGU Fall Meeting, New Orleans, LA
- Liu, M.** and Filina, I., 2017. “Delineation of Crustal Domains in the Northeastern Gulf of Mexico from Integrated Geophysical Analysis”, GSA Annual Meeting, Seattle, WA

Awards

Student Travel Grant, Geological Society of America North Central Section	2017
Best Earth Science Presentation, Nebraska Geological Society	2017
Dean’s List for Outstanding Academic Achievement, UNL	2016
International Student Scholarship, UNL	2014–2016

Professional Affiliations

AAPG, GSA, AGU, Nebraska Academy of Sciences, Houston Geological Society, UH Geosociety

Service Activities

AAPG Wildcatters UH Student Chapter, Vice President	2019-Present
Technical session coordinator, GSA Annual Meeting, Seattle	Oct. 2017
Outreach presenter, Lincoln Public Schools Science Fair	Mar. 2017
Presenter, Dinosaur & Disaster Event, University of Nebraska State Museum	Feb. 2017

Technical Skills

Microsoft Office, ArcGIS, Geosoft Oasis Montaj, Petrel, IHS Kingdom, Paradigm Echos, StructureSolver, GPlates, SAS statistics package, C programming language, GMT, MB