



JOHN A. AND KATHERINE G. JACKSON
SCHOOL OF GEOSCIENCES

SATURDAY, MAY 22, 2021 ★ 2:00 P.M. ★ WILLIAM C. POWERS AUDITORIUM

JOHN A. AND KATHERINE G. JACKSON SCHOOL OF GEOSCIENCES
The University of Texas at Austin

GRADUATION EVENT
Saturday, May 22, 2021
2:00 P.M.
William C. Powers Auditorium

WELCOME

DR. CLAUDIA MORA
Dean, Jackson School of Geosciences

DISTINGUISHED STUDENT SPEAKER

EVAN RAMOS
Ph.D. Geological Sciences, 2021
M.S. Geological Sciences, 2017

RECOGNITION OF CANDIDATES FOR BACHELOR'S DEGREES

RECOGNITION OF CANDIDATES FOR MASTER'S DEGREES

RECOGNITION OF CANDIDATES FOR DOCTORAL DEGREES

CONCLUSION

DR. CLAUDIA MORA

SPRING 2021 CANDIDATES FOR GRADUATION

Bachelor of Arts in Geological Sciences

CAMERON MARIE KERR

Bachelor of Science in Environmental Sciences

AUSTIN THOMAS ARNOLD, Geological Sciences

KAHNE MIA COBARRUBIAS, Geological Sciences

KELSEY ELAINE PARKER, Geological Sciences

Bachelor of Science in Geological Sciences

CONNER SHEA BRIGHAM, General Geology

ABBY LIN CREIGHTON, General Geology, Jackson Scholars, Dr. Christopher Bell

BRITNEY DIANE DAVIS, General Geology

MATTHEW ROBERT DEAN, General Geology

ANTHONY HARRIS EDGINGTON, General Geology, Jackson Scholars, *Age, Stratigraphic Architecture, and Provenance of the Cretaceous Cerro Barcino Formation, Patagonian Broken Foreland Basin, Southern Argentina*, Dr. Christopher Bell

JAKE EMORY GOINS, General Geology, Special Honors, *Fingerprint and Similarity Thresholding for Earthquake Detections: A West Texas Application*, Dr. Mark Cloos

HEATHER ANGELA GUNN, General Geology, Special Honors, *Advancing the Moisture Amount Paleoclimate Proxy in Central Texas Stalagmite Records through Application of Novel Imaging Techniques: A Case Study of Growth Band Morphology and Chemical Composition Across the ~14.7 ka Bølling–Allerød Rapid Deglacial Warming Event*, Dr. Nate Miller

DEWEY PRESTON HENLEY, General Geology

LAUREN ELIZABETH LOBUE, General Geology

TYLER NELSON LOGIE, General Geology, Special Honors, *Multi-proxy Reconstruction of Marine Paleoenvironmental Shifts During Early Toarcian Climate Perturbations: Insights from the Central High Atlas Mountains, Morocco*, Dr. Rowan Martindale

LEIGH CARRELL MERCER, General Geology

ROSALIND ELIZABETH MOREMAN, General Geology, Jackson Scholars, Dr. Christopher Bell

MARGARET ANN MURAKAMI, General Geology

LUKE GEORGE MURRAY, General Geology

SHELBY LORRAINE OLIPHANT, General Geology

CLAIRE PHILLIPS PLUIM, General Geology, Special Honors, *Analyzing Seasonal Variations in Hydraulic Capacitance of Trees*, Dr. Ashley Matheny

SETH EMMANUEL RANDALL, General Geology

LANDEN TRAVIS WHITE, General Geology

LAUREN LEE KRUEGER, Geophysics

IRINEO SANCHEZ, JR., Geophysics, Special Honors, *Observing Longitudinal Profiles of Amphitheater-Shaped Valley Headwalls on Mars and Implications for their Formation*, Dr. Timothy Goudge

THARIT TANGKIJWANICHAKUL, Geophysics, Special Honors, *Chain of Operators for Inverse Hessian Estimation in Least-squares Migration*, Dr. Sergey Fomel

BROOKE LAUREN FRY, Hydrogeology

ILIANA ISABEL MARTINEZ, Hydrogeology

EMMA ADELE PETERMAN, Hydrogeology

ADDISON KAY SAVAGE, Hydrogeology

SHANE HEATH, Hydrogeology

Master of Science in Energy and Earth Resources

TAYLOR HENRY BARNHART, *Constraining Data Requirements and Acquisition Costs for Underground Injection Control Class VI Carbon Dioxide Injection Permits*, Dr. Susan D. Hovorka

MEIYAN CHEN, *Optimal Electrification Pathways in Sub-Saharan Africa*, Dr. Bridget Scanlon

ASHTON GRACE CRUES, *Analysis of the Policies and Climate Effects Surrounding Wind Turbine Installations in West Texas*, Drs. Carey King and Zong-Liang Yang

EJI KAWAI, *The Role of Carbon Capture and Utilization in Industrial Sector Decarbonization: A Case Study of Japan*, Dr. Benjamin D. Leibowicz

LAUREN GRACE LAMB, *Sustainability of Craft Distilleries: An Analysis of the Profitability of a Carbon Neutral Craft Distillery in Central Texas*, Dr. Fred Beach

ANDREW MAKARY MUROSKO, *A Cash Flow Model of Carbon Capture Retrofit Investment in Texas Power Generation using Monte Carlo Simulation*, Dr. James Dyer

ELI RAMTHUN, *Winds of Change: Assessing Direct and Indirect Effects of Renewable Energy Growth on ERCOT's Fuel Mix*

VIANEY RUEDA, *Systems Dynamics Modeling in Local Water Management: Assessing Strategies for the City of Boerne, TX*, Dr. Michael H. Young

MARIELA SALDIVAR, *Integrated Solar PV to Power an RO Seawater Desalination Facility: A Feasibility Study in the Region of South Texas*, Dr. David Eaton

MELIANNA ULFAH, *Plume Migration and Pressure Evolution Analyses for Recommendations in Offshore CO₂ Storage Acreage Leasing Policy*, Dr. Susan D. Hovorka

Master of Science in Geological Sciences

JOHN DANIEL FRANNEY, *High Order Stratigraphic Framework of Intraslope Growth Faulted Subbasins near Offshore Matagorda Bay, TX*, Dr. Tip Meckel

JAMES HOOKER GEARON, *Sequence Stratigraphy in Strike Variable Fluvio-Lacustrine Systems: Evidence from Eocene Lake Uinta and Modern Analogs*, Drs. Cornel Olariu and Ron Steel

JAIME ANN MEGUMI HIRTZ, *Basin Architecture, Geochronology, and Sediment Provenance of the Belt-Purcell Supergroup of Montana, USA and Alberta, Canada*, Drs. Brian Horton and Ron Steel

HARRY LEJEUNE HULL, *Characterizing Reservoir Quality for Geologic Storage of CO₂—A Case Study from the Lower Miocene Shore Zone at Matagorda Bay, TX*, Dr. Tip Meckel

JASMINE RENEE NELSON, *Reassessing Middle and Inner Ear Morphometrics as Predictors of Auditory Capabilities in Reptiles*, Dr. Julia Clarke

FERNANDO M. REY, *Anatomy of Deltaic Compound Clinoforms; Colorado Delta in Baja California, Mexico, Pliocene Colorado Delta in Fish Creek-Vallecito Basin, California, USA, and a Review of Modern Examples World-wide*, Dr. Cornel Olariu

JOSEPH CARL SYZDEK, *Mechanical Stratigraphic Control on Deformation in a Fault-Propagation Fold, Gobbler Anticline, Sacramento Mountains, New Mexico, USA*, Drs. Christopher Zahm and Charles Kerans

DAVID MCLEAN WIGGS, *A Generalized Model to Describe the Elastic Stiffness Tensor for Complex Strains in Mudrocks*, Dr. Peter Flemings

Doctor of Philosophy in Geological Sciences

ANDREW CLEVELAND GASE, *Seismic Investigations of Subduction and Intra-arc Rifting at the Hikurangi Margin, New Zealand*, Dr. Harm Van Avendonk

ERIC JAMES GOLDFARB, *Predictive Digital Rock Physics*, Dr. Nicola Tisato

KEN IKEDA, *Frequency-dependent Mechanical Properties of Geomaterials: Laboratory Experiments and Digital Rock Physics*, Dr. Nicola Tisato

DOMINIK ALEXANDER KARDELL, *The Structural and Thermal Evolution of Upper Oceanic Crust in the Western South Atlantic: Insights from Seismic Velocities and Hydrothermal Models*, Drs. Gail Christeson and Sean Gulick

PATRICK KEVIN MEAZELL, II, *Deepwater Gas Hydrate Reservoirs: Characterization and Consequences*, Dr. Peter Flemings

JUNWEN PENG, *Heterogeneity Characterization and Genetic Mechanism of Deepwater Fine-grained Sedimentary Rocks During Icehouse Period: A Case Study from the Upper Pennsylvanian Cline Shale, Midland Basin*, Drs. Xavier Janson and Qilong Fu

SON DANG THAI PHAN, *Machine Learning Algorithms for Solving Some Seismic Inversion Challenges*, Dr. Mrinal Sen

NATASHA PIATRUNIA, *Biomarker Perspective on Southern Hemisphere Climate Variability on Millennial to Orbital Timescale*, Dr. Timothy Shanahan

EVAN JOSEPH RAMOS, *Toward a Mechanistic Understanding of Silicate Weathering and Li Transfer Across Landscapes, Past and Present*, Drs. Daniel Breecker and Jaime Barnes

SIMON GEORGE SCARPETTA, *Miocene Modernization of the North American Lizard Fauna*, Dr. Christopher J. Bell

LILY R. SERACH, *Elucidating Biotic and Abiotic Controls Over Soil Carbon Stabilization Using Isotope Geochemistry*, Dr. Daniel Breecker

BRANDON SHUCK, *Mechanisms of Lithospheric Failure During Late Continental Rifting and Early Subduction*, Drs. Harm Van Avendonk and Sean Gulick

CHIJUN SUN, *Hydroclimate Changes Over North America Since the Last Glacial Maximum*, Dr. Timothy Shanahan

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