

TEXAS A&M UNIVERSITY Commencement



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TEXAS A&M UNIVERSITY COMMENCEMENT

Program

Doctoral Commencement and Hooding Ceremony

Saturday, August 6, 2022, 10 a.m. Bethancourt Grand Ballroom

Processional

The National Anthem

Invocation

Student Expression of Appreciation

Greetings and Authorization to Confer Degrees

Presentation of Degree Candidates and Conferring of Degrees

Roll Call of Graduates

Induction into The Association of Former Students

Recessional

Faculty Marshals

, and the second
Mace Bearer Dr. Heather C. Lench, Senior Associate Vice President for Faculty Affairs Stage Party Dr. Adam R. Seipp, Associate Dean Announcer Mr. Steve Fullhart, Manager, Brazos Valley Economic Development Corporation
The Texas A&M University System Board of Regents
Mr. Tim Leach, Chairman Midland Mr. Bill Mahomes, Jr., Vice Chairman Dallas Mr. Robert L. Albritton Fort Worth Mr. James R. "Randy" Brooks San Angelo Mr. Jay C. Graham Houston Mr. Michael A. "Mike" Hernandez III Fort Worth Ms. Elaine Mendoza San Antonio Mr. Michael J. Plank Houston Mr. Cliff Thomas Victoria Mr. Demetrius L. Harrell, Jr. (Student Regent) Palatka, Florida
Chancellor Mr. John Sharp Placedo
Texas A&M University Administrative Officers
President
Dean, School of Law and Vice President for Professional Schools and Programs Mr. Robert B. Ahdieh

Dean, College of Liberal Arts (interim) Dr. Steven M. Oberhelman
Dean, College of Medicine Dr. Amy L. Waer
Dean, College of Nursing
Dean, Irma Lerma Rangel College of Pharmacy Dr. Indra K. Reddy
Dean, School of Public Health Dr. Shawn G. Gibbs
Dean, College of Science
Dean, College of Veterinary Medicine and Biomedical Sciences
Dean and Chief Operating Officer
Texas A&M University at Qatar
Dean, Graduate and Professional School and
Associate Provost
Chief Operating Officer and
Chief Operating Officer and Senior Vice President
Chief Operating Officer and Senior Vice President,
Texas A&M Health
Chief Operating Officer and Vice President,
Texas A&M University at Galveston Colonel Michael E. Fossum (Ret.)
Chief Financial Officer and Vice President Mr. John W. Crawford
Chief Marketing and Communications Officer and
Vice President Ms. Marilyn M. Martell
Chief Information Officer and Vice President for
Information Technology Mr. Edwin L. Pierson
Chief Compliance Officer and Vice President Mr. Kevin P. McGinnis
Vice President for Academic
and Strategic Collaborations Dr. Susan G. Ballabina
Vice President and
Associate Provost for Diversity
Vice President for Brand Development Mr. Shane Hinckley
Vice President for University Advancement
Vice President for Enrollment and
Academic Services
Vice President for Facilities, Safety,
and Security
Vice President for Faculty Affairs Dr. Nagamangala K. Anand
Vice President for Government Relations Mr. Norman R. Garza, Jr.
Vice President for Human Resources and
Organizational Effectiveness Mr. Damon Slaydon
Vice President for Operational Innovation Dr. Alan Sams
Vice President for Research Dr. Jack G. Baldauf
Vice President for
Student Affairs Brigadier General Joe E. Ramirez, Jr. (Ret.)
Vice Provost of Undergraduate Studies (interim) Dr. Ann L. Kenimer
Associate Vice President for Academic Affairs, Texas A&M University at
Galveston, and Associate Provost (interim)Dr. Antonietta S. Quigg
University Librarian and Assistant Provost,
Texas Á&M University Libraries Ms. Julie A. Mosbo Ballestro
Commendant of the
Commandant of the Corps of Cadets (interim) Colonel Byron F. Stebbins (Ret.)

Candidates for Doctoral Degrees

Presented by Dr. Karen L. Butler-Purry Dean and Associate Provost

Graduate and Professional School

College of Agriculture and Life Sciences

Doctor of Philosophy

Shirl	ey Heidi Arbizu B Dissertation:	errocal Food Science and Technology "Dark Sweet Cherry (<i>Prunus avium</i>) Supplementation Modulates Inflammation, Cognitive Function, and Intestinal Microbial Composition in Obese Individuals: A	
	Chair: Co-Chair:	Single-Blind Randomized Clinical Trial" Susanne Talcott Giuliana D. Noratto Dongo	
Shisl	hir Basant Dissertation:	Ecology and Conservation Biology "Changes in Ecohydrology Due to Woody Plant En- croachment in Subtropical Savannas"	
	Chair: Co-Chair:	Bradford Wilcox Cristine L. Morgan	
Alex	ander Joseph Blun Dissertation: Chair:	nenfeld Entomology "Studies on the Invasion Biology of Social Insects" Edward L. Vargo	
Gabriela Cardoso Dal Pont			
	Chair:	Yuhua Z. Farnell	
Gene	evieve Meganrose Dissertation:	D'Souza Animal Science "Evaluation of Techniques in Ruminant Nutrition for Sustainable Production"	
	Chair:	Luis Tedeschi	
Jeffr	y Paul Downey Dissertation: Chair:		
Nich	olas Leo Drury Dissertation:	"Ultrafine Particulate Matter Air Pollution Exposure Aggravates Pulmonary Responses to Influenza Infection During Pregnancy"	
	Chair: Co-Chair:	Susanne Talcott Natalie M. Johnson	
Blake Elkins Entomology			
	Dissertation:	"An Invasive Aphid Pest of Sorghum (<i>Melanaphis sorghi</i>)" and its Natural Enemies Across Landscapes, Patches, and Host Plants"	
	Chair: Co-Chair:	Michael J. Brewer Micky Eubanks	

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Xue Gong...... Biochemistry "Mechanism of Membrane Fission by Yeast Amphiphysin" Dissertation: Chair: Jean-Philippe Pellois Gabrielle Marie House Poultry Science "Evaluation of Light-Emitting Diode Spectral Output Dissertation: and Photoperiod Duration on Pekin Duck Performance, Stress, and Welfare" Chair: Gregory S. Archer Xinyue Huang..... Ecology and Evolutionary Biology Dissertation: "Estimation on Impacts of Vector Control Operations on Culex quinquefasciatus and Aedes albopictus in Harris County, Texas" Chair: Phillip E. Kaufman Co-Chair: Michel Slotman Tara-Kay Lencola Jones Entomology "A Collision of Maize Stressors: Drought and Dalbulus Dissertation: maidis, Vector of Corn Stunt Disease" Raul Medina Chair: Co-Chair: Iulio Bernal Jamshaid Ali Junaid...Plant Breeding Dissertation: "Development and Characterization of Advanced Generations A₂D₁ Chromosome Segment Substitution Lines in Cotton" Chair: David Stelly Rebecca Kirkpatrick Kemp...... Animal Science "Evaluation of Hempseed Meal as a Protein Source in Dissertation: Swine Finishing Rations" Chair: Kerri B. Gehring Ammani Naidu KyanamPlant Breeding "Advancements in Sorghum Breeding to Address Emerg-Dissertation: ing Challenges" Chair: William L. Rooney Ecology and Conservation Biology Zheng Li Dissertation: "Wildfires in the Western US Rangelands: Spatial and Temporal Patterns and Impacts on Vegetation Structure" Xinyuan Wu Chair: Jay P. Angerer Co-Chair: Randy Scott Lund...... Agricultural Leadership, Education, and Communications Dissertation: "An Analysis of Demand for Secondary Agricultural Teachers by Pathway" Timothy H. Murphy Chair: Rafael Ernesto Martinez Animal Science Dissertation: "Evaluation of Amino Acid Synthesis In Vitro by Equine Enterocytes and the Ability of Dietary Arginine Supplementation to Improve Gestational Performance of Aged Mares" Chair: Jessica L. Lucia

Thomas James McGlynn Entomology "An Examination of Mating Behavior in Anopheles gambiae Dissertation: Species Complex Mosquitoes" Pete Teel Chair. Co-Chair: Gabriel L. Hamer Dissertation: "Stream Flow Management as a Conservation Tool for Great Plains Fishes" Chair. Joshuah S. PerkinHorticulture Kuan Qin Dissertation: "Application of Lignite-Derived Humic Substances in Vegetable Production Systems" Daniel Leskovar Chair: Co-Chair: Sanjay Antony-Babu Jennifer Lyn Rhinesmith Entomology "Smelling, Searching, and Sabotage: Effects of Two Dissertation: Primary Colonizers, Lucilia sericata (Meigen) (Diptera: calliphoridae) and Nicrophorus vespillodies (Herbst) (Coleoptera: silphidae), on Carrion Volatiles and Attraction" Chair: Jeffery Tomberlin Jordan Elizabeth Rogan..... Ecology and Conservation Biology Dissertation: "Assessing the Impacts of Land Use Change on Mammals in a Social-Ecological System: Conservation Implications for Biodiversity and Livelihoods in Monteverde, Costa Rica" Chair: Thomas Lacher Nirvay Sah..... Physiology of Reproduction Dissertation: "Metabolism of One-Carbon Units and Creatine in Uterine-Placental Tissues During Pregnancy in Sheep" Fuller Bazer Chair: Xiaoqing Shen..... Agronomy Dissertation: "Application of Botanical Composition Identification and Accuracy Assessment for Grassland Mixtures and Brush from Unoccupied Aerial System Imagery" Chair: Jamie L. Foster Co-Chair: Russell W. Jessup Eric Benedict Sobotik... Dissertation: "Evaluating the Efficacy of a Novel Consensus Bacterial 6-Phytase Variant on Broiler Performance" Chair: Gregory S. Archer Genetics Junctional Stability in Response to Sphingosine 1-Phosphate" Chair: Kayla J. Bayless Shaik Waseem Vali... Biochemistry Dissertation: "Biophysical and Bioanalytical Probes to Study Iron Trafficking in Yeast, Archaea, and Mammals" Vishal Gohil Chair:

Dissertation: "Roles of Cytoskeletal Polarity in Fungal Spore Adhesion

and Growth" Brian Shaw

Dissertation: "The Evaluation of Live Production and Processing

Interventions and their Impact on Salmonella Reduction in

Broilers"

Chair: John Carey

Chair:

Ying Wang..... Agricultural Economics

Dissertation: "Essays on Social Connections and Environmental

Economics"

Chair: Richard Woodward

Dissertation: "Promotion of Lipid Accumulation in Adipose Tissue by

GPR43 and Oleic Acid"

Chair: Stephen B. Smith

"Strategic Integration of Insect-Plant Interaction Study, Natural Enemy Investigation, and Establishment of

Callus-Induced Crapemyrtle Regeneration for Managing

Crapemyrtle Bark Scale (Hemiptera: Eriococcidae)"

Chair: Mengmeng Gu Co-Chair: Hongmin Qin

Dissertation: "Biological Parameters of Crapemyrtle Bark Scale (CMBS;

Acanthococcus lagerstroemiae) and the Plant-insect Interac-

tions between Host Plants and CMBS"

Chair: Mengmeng Gu Co-Chair: Hongmin Qin

Dissertation: "Characterization of the Localized Immune Responses at

the Single Cell Resolution in Arabidopsis Roots^{*}

Chair: Ping He Co-Chair: Jing Cai

Homa Zarghami......Molecular and Environmental Plant Sciences

Dissertation: "Genetic Analysis of Salt Tolerance in Cowpea"

Chair: Dirk B. Hays

College of Architecture

Doctor of Philosophy

Mohammad S A A M Alawadhi......Architecture

Dissertation: "Teaching an Artificial Intelligence with Generated Virtual

Buildings for Real-World Recognition"

Chair: Wei Yan

"BIM-Enabled Augmented Reality for Learning and Dissertation: Understanding Buildings" Chair: Wei Yan Mirsalar Kamari..... Construction Science Dissertation: "Construction Site Hurricane Preparedness Using Digital Twinning through Large-Scale Visual Data" Chair: Youngjib Ham Manogna Kavuru "Assessing the Potential of Infrared Thermography for Dissertation: Heritage Conservation in India – Case studies of the Former British Residency in Hyderabad and the Shivappa Nayaka Palace in Shivamogga, India." Chair: Stephen Caffey Namgyun Kim . . . Dissertation: Workplace Hazards: Observing Habituated Behaviors and Providing Interventions in a Virtual Reality Environment" Chair. Changbum R. Ahn Co-Chair: Brian A. Anderson Se Woong Kim Urban and Regional Science Dissertation: "Exploring The Effect of Physical Form on Urban Heat Island Variations" Robert D. Brown Chair: Construction Science Taewoo Ko. "Natural Language Processing-Driven Approach to Utili-Dissertation: zation of Unstructured Textual Data for Enhanced Project Planning" Chair: Hyungseok D. Jeong Hoonyong Lee Construction Science Dissertation: "Generalization in Wi-Fi-Based Single Occupant Activity Recognition Through Activity-Specific Feature Representation" Chair: Changbum R. Ahn Ahmed Abdullah H Mezaien......Architecture Dissertation: "Analysis of Regenerative, High-Performance and Cultural-Based Single-Family Homes: Impacts of a New Generation of Affordable Housing in Saudi Arabia" Chair: Juan-Carlos Baltazar Wonjae Yoo "BIM-Based Automatic Outdoor Thermal Environment Dissertation: and Thermal Comfort Evaluation System Using EnergyPlus-Driven Deep Learning' Chair. Mark Clayton

Mays Business School

Doctor of Philosophy

James Ogden Driver Business Administration

Dissertation: "Essays on Innovation in Corporate Finance"

Shane A. Johnson Adam C. Kolasinski Chair: Co-Chair:

. Business Administration

Chair: Nathan Sharp

ration of How Employees Evaluate, Experience, and

Respond to Allyship Failure"

Chair: Anthony Klotz

Muzeeb Shaik Business Administration

Dissertation: "Business-to-Business Sales Opportunity Management

Strategy"

Shrihari Sridhar Chair: Co-Chair: Vikas Mittal

Yun Wang Business Administration

Dissertation: "Essays on Firms' Strategic Decisions under Consumer

Uncertainty"

Chair: Yan Liu Co-Chair: Cexun Cai

College of Dentistry

Doctor of Philosophy

. Oral and Craniofacial Biomedical Sciences Ritesh Bhattacharjee. . . .

"Analysis and Quantification of Orbital Fractures: An Dissertation:

Artificial Intelligence-Based Approach"

Chair: Matthew Kestrerke

Co-Chair: Ganes Sankaranarayanan

Zheng Wang Oral and Craniofacial Biomedical Sciences

"Tendon Cells Root into Rather Than Attach to the Humerus Dissertation:

Bone Head via Enthesis Fibrocartilage"

Chair: Yan Jing

Dissertation:

Kathy K. Svoboda Co-Chair:

Oian Xu . Oral and Craniofacial Biomedical Sciences

"Roles of Inositol-requiring Enzyme 1 Alpha (IRE1A) in

Odontogenesis"

Chair: Yongbo Lu

College of Education and Human Development

Doctor of Education

Robin Ries Bova Record of Study: "The Relationship Between Professional Development in

Social-Emotional Learning and Symptoms of Compassion

Fatigue in Middle School Educators'

Chair. Michelle M. Kwok Karen E. Rambo Co-Chair:

Elana Rebecca Goldbaum Curriculum and Instruction

Record of Study: "Racism, Genocide, and Social Hatreds: 'How Do We Teach Knowledge That Hurts?' Exploring a Community

of Practice for Educator Support"

Chair: Radhika Viruru Co-Chair: Susan Fields

Kelly Kristina Harle... Curriculum and Instruction

Record of Study: "Evaluating the Effectiveness of an Induction and Men-

toring Program on Novice Educators' Teaching Efficacy

and Impact on Pedagogical Skills"

Chair: Robin A. Rackley

Ashton Hughes. Curriculum and Instruction

Record of Study: "Affecting Student Growth in Reading Through Text

Structure Strategy Intervention"

Sharon D. Matthews Chair: Co-Chair: Debra McKeown

..... Educational Administration Molley Ann Perry..

Řecord of Study: "Examining School Administrators' Perceptions Regard-

ing Special Education Enrollment Trends in Texas Public

Schools"

Daniel H. Bowen Chair:

..... Educational Administration Christina Dawn Richardson.....

Record of Study: "Early College High School Graduates' Perceptions of College Readiness During Bachelor's Degree Attainment"

Daniel H. Bowen Chair:

Joey Michelle Shimek Curriculum and Instruction

Record of Study: "Closing the Gaps in Mathematics for Elementary-Aged

Students using Various Musical Interventions"

Chair: Mary Capraro Co-Chair: Robert Capraro

Jennifer Beth Stumbaugh Educational Administration

"Principal Turnover in Texas, Title I High Schools: A Record of Study:

Narrative Multiple Case Study" Chair: Gwendolyn Webb-Johnson

Brandon David Vestal Curriculum and Instruction

Record of Study: "Cultivating Compassion Through Discussion"

Sharon D. Matthews Chair: Co-Chair: Radhika Viruru

Record of Study: "Professional Development Models for Secondary Co-Teachers" Michelle M. Kwok Chair: Co-Chair: Karen E. Rambo Doctor of Philosophy Counseling Psychology Sakina F. Ali "The Roles of Attitudinal Familism, Acculturative Stress, Dissertation: and Depressive Symptoms for South Asian College Students" Chair: Linda Castillo Bhagyashree Barhate Educational Human Resource Development Dissertation: $\hbox{``Career Aspirations of Generation Z in India's Information}$ Technology Industry: A Grounded Theory Exploration" Chair. Khalil M Dirani Rhonda Vickers Beassie..... Educational Administration Dissertation: "How the 'Danger Tours' Inform Protection of Controversial Speech in the Marketplace" Chair: Vicente Lechuga Dissertation: "Exploring the Connection between Word Problem Structure and Problem Posing" Chair. Mary Capraro Jamaal R. Young Co-Chair: Sergio Heriberto Camarillo Arroyo......Educational Psychology Dissertation: "Impact of Targeted Interventions for English Learners in the Domains of Word Recognition, Letter Sound, and Phonological Awareness" Chair: Rafael Lara-Alecio Co-Chair: Fuhui Tong Hamada Ahmed Fahmy Ahmed Elfarargy Educational Administration Dissertation: "Practicing Elementary School Principals' Perceptions of How University Principal Preparation Programs Prepared Them for Instructional Leadership" Chair: Beverly Irby Jean Madsen Co-Chair: Educational Administration "Essays on Technology Transfer at American Universities Vassa Grichko..... Dissertation: at Critical Time Points" Glenda D. Musoba Chair: Jaime Angelle Guillot-Dykes School Psychology "Path Analysis on Factors Contributing to Victimization Dissertation: in Adolescence" Chair: Jamilia Blake Curriculum and Instruction Bing Han

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R Joshi

Dissertation:

Chair:

"Understanding Metalinguistic Awareness and Literacy

Development in a Morphosyllabic Orthography"

Race-Related Experiences and Black Youth Development" Chair: Leann V. Smith Dylan Stone Holly Kinesiology Dissertation: "Genetic Background Influences Arterial Vasomotor Function in Male and Female Mice" Chair: Christopher Woodman Emily Machelle Jimenez School Psychology "Predictors of Social Functioning in Adolescents with Dissertation: Pediatric Epilepsy" Chair: Cynthia Riccio Sang Hoon Kim Kinesiology "Fan Agency, Social Modeling of Stadium, and Behavioral Dissertation: Engagement: A Perspective on Building Participatory Fan Culture and Community" Chair: Hyun-Woo Lee Steven David Koether Educational Human Resource Development Dissertation: "Critical Thinking in the Undergraduate Classroom: Attitudes and Preferences from Emerging and Adult Learners" Chair: Junghwan Kim Co-Chair: Elizabeth Roumell Utilization of Mental Health Care Services" Chair: Cynthia Riccio Cristal Lopez..... Counseling Psychology Dissertation: "Experiencing Impostor Phenomenon? You're Not Alone: Impostor Phenomenon, General Self-efficacy, and Burnout Among STEM Professionals in the U.S." Chair. Lizette Ojeda Karen Elizabeth Graham McIntush..... Curriculum and Instruction Dissertation: "Teacher Preparation and Implementation: Examining Culturally Responsive Classroom Management" Hersholt Waxman Chair: Tracie Lynn Miller Educational Human Resource Development "A Qualitative Study of African American Women's Dissertation: Learning Experiences in Financial Literacy Courses" Chair: Elizabeth Roumell Co-Chair: Lisa Baumgartner Karol Ann Moore Curriculum and Instruction Dissertation: "The Identification and Prevalence of Dyslexia Among English Learners" Chair: R Joshi Health Education Sonya S. Panjwani . . . Dissertation: "Integrated Health Service Delivery Networks and their

Whitney R. Garney

Chair:

Implications for the First 1,000 Days in Rural Colombia"

Sangchul Park Dissertation:	"The In-Depth Investigation of Performance Attribu- tion Effect in Fitness Service: Before, During, and After Service Operation"
Chair:	Hyun-Woo Lee
Luis Fernando Ponte R Dissertation:	Rodriguez
Chair:	Lizette Ojeda
Ambyr Ruth Acton Ric Dissertation:	os
Chair: Co-Chair:	Cheryl J. Craig Andrew H. Kwok
Dissertation:	Textbook Activities"
Chair:	Lynn Burlbaw
Jenna Kristine Schwart Dissertation:	z
Chair:	Cynthia Riccio
Dissertation:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD"
Ticiane Silva Dissertation: Chair:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children
Dissertation: Chair: Brandon Paul Smith Dissertation:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD" Cynthia Riccio Counseling Psychology "Military and Civilian College Male Mental Health Stigma, Disclosure, and Treatment Efficacy Beliefs"
Dissertation: Chair: Brandon Paul Smith Dissertation: Chair:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD" Cynthia Riccio
Dissertation: Chair: Brandon Paul Smith Dissertation: Chair:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD" Cynthia Riccio Counseling Psychology "Military and Civilian College Male Mental Health Stigma, Disclosure, and Treatment Efficacy Beliefs" Linda Castillo tickley. Counseling Psychology
Dissertation: Chair: Brandon Paul Smith Dissertation: Chair: Mariah Montgomery S Dissertation: Chair:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD" Cynthia Riccio
Dissertation: Chair: Brandon Paul Smith Dissertation: Chair: Mariah Montgomery S Dissertation: Chair: Co-Chair: Huilin Sun	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD" Cynthia Riccio
Dissertation: Chair: Brandon Paul Smith Dissertation: Chair: Mariah Montgomery S Dissertation: Chair: Co-Chair: Huilin Sun Dissertation: Chair: Co-Chair:	"Associations between Neurocognitive Processes, Academic Achievement, and Social Functioning in Children and Adolescents with Symptoms of ADHD" Cynthia Riccio Counseling Psychology "Military and Civilian College Male Mental Health Stigma, Disclosure, and Treatment Efficacy Beliefs" Linda Castillo Stickley

Students' Behavior: Results from a Name Experiment"

Chair: **Jeffrey Liew** Co-Chair: Sara M. Castro Olivo

Resilience Facilitates Adjustment Among Individuals

With Spinal Cord Injury and Disease"

Chair: Timothy Elliott

Erika Wright

Dissertation: of Adults with Disabling Conditions from Early to Middle

Adulthood"

Chair: Timothy Elliott

Yu Xiao

Dissertation:

Satisfaction: A Multidimensional Study"

Chair: Yeping Li

Sijin Yan Curriculum and Instruction

Dissertation: "Toward A Feminist and Femme-nist Reconsideration of

Moral Education: Levinas, Anti-Violence Education, and

the Issue of Femmephobia"

Chair. Geor Slattery

Caroliina He Yin.....

"Boundary Setting of Mental Health Professionals: Its Dissertation:

Relationship to Self-Care, Burnout, and Well-Being"

Chair: Charles Ridley

...... Kinesiology

Dissertation: "Athlete Branding in the Digital Era: Athlete Personal

Branding through Self-Presentation on Twitch"

Gregg Bennett Chair Co-Chair: Natasha T. Brison

Mehrangiz Zadegh Abadi..... Educational Human Resource Development

Dissertation: "Work/Nonwork Boundary: A Phenomenological Inves-

tigation of the U.S Pre-Tenured Academic Faculty during

the Covid-19 Pandemic"

Chair: Khalil M. Dirani

......Educational Psychology Fubiao Zhen

Dissertation: "Examining the Impact of Literacy Infused Science

Curriculum and Professional Development on Diverse

Learners' Science Content Knowledge Learning"

Chair: Fuhui Tong

College of Engineering

Doctor of Engineering

Victor Hugo Hernandezgaytan Engineering Record of Study: "The Reemergence of a Geotechnical, Special Inspection,"

and Construction Material Testing Firm"

Chair: Charles M. Wolf

Doctor of Philosophy

Bilal Saad Azeez Abada Civil Engineering

"Municipal and Industrial Wastewater Treatment via Dissertation: Reverse Osmosis, Electrocoagulation, and Dissolved Air

Chair: Shankararaman Chellam

Amal Abdelaziz Civil Engineering

Dissertation: "Multiscale Characterization of Asphalt Binders and Mixtures with High Reclaimed Asphalt Pavement Content"

Chair: Amy E. Martin Co-Chair: Eyad Masad

Mohammed Gomaa Eid Farag Abdoelatef. Materials Science and Engineering

"A Novel Mesoscale Modeling of Fracture in Nuclear Fuels" Dissertation:

Chair: Karim E. Ahmed

Printing Utilizing Kaolinite-Based Calicium Sulfoalumi-

nate Cement Concrete and Conventional Construction"

Chair. Bjorn Birgisson Manish K. Dixit Co-Chair:

Davis Weaver Adams Aerospace Engineering

"Velocimeter LIDAR Information Fusion For Guidance, Dissertation:

Navigation, and Control of Aerospace Systems"

Chair: Manoranjan Majji Co-Chair: John Junkins

Diana Al Husseini

Dissertation: "Surface Functionalization for Selective Mid-Infrared On-

Chip Sensing"

Svetlana Sukhishvili Chair:

Luay Mohammad Deeb Alawneh Nuclear Engineering

"Conceptual Design of a 3 MWTH Yttrium Hydride Dissertation:

Moderated Heat Pipe Cooled Micro Reactor for Spacefar-

ing Applications"

Chair. Yassin Hassan

Mohammad Fuad Amin Aljarrah Civil Engineering

Dissertation: "Characterization, Generation, and Computational

Modeling of Asphalt Nanostructures for Predicting Their

Mechanical Response"

Chair: Evad Masad Co-Chair: Dallas Little

"Solution Strategies for Developing Large-Scale Energy Dissertation: Systems" Chair: Efstratios Pistikopoulos Sulaiman Mohammed S AlsaleemMechanical Engineering Dissertation: "Experimenetal Investigation of Convective Heat Transfer and Pressure Losses in Turbine Blade Internal Cooling Channels" Chair. Ie Han Co-Chair: Lesley M. Wright Abdulrahman Saleh A Alsuhaibani Chemical Engineering Dissertation: "A Multiscale-System Analysis of the Techno-Economic and Environmental Aspects of Shale and Natural Gas Monetization Pathways" Chair: Mahmoud El-Halwagi Co-Chair: Nimir Elbashir "Laser Absorption Diagnostic for Chemical Kinetics Dissertation: Studies of Ammonia" Chair: Eric Petersen the Future Technologies" Andreas A. Polycarpou "Dynamics and Mechanisms of Ion Transport Through Dissertation: Liquid and Amorphous Phases of Lithium Metal Batteries" Chair: Perla Balbuena "Secondary Electron Transport in Nuclear Avalanche Cells Dissertation: Induced by Photon Irradiation" Chair. Sean McDeavitt Michael Bae..... Chemical Engineering Dissertation: "Novel Nanocomposite Biopesticides with Azadirachtin to Protect Tomato Plants against Fall Armyworms" Chair: Mustafa Akbulut Dissertation: "Hybrid Modeling Approaches Integrating Physics-Based Models with Machine Learning for Predictive Control of Biological and Chemical Processes" Chair: Joseph S. Kwon Dissertation: "Tribology of High-Performance Polymers at Extreme Conditions From Cryogenic to Elevated Temperatures" Chair: Andreas A. Polycarpou Jaskirat Singh Batra . .

Monitoring in Healthcare"

Iun Kameoka

"Low-Cost Wearable Biosensors for Virus and Lithium

Dissertation:

Chair:

with Proper Orthogonal Decomposition for Parametric Radiation Transport" Chair: Jean C. Ragusa putational Modeling in Compressible Flow" Chair. Helen Reed Casey Joseph Broslawski...... Aerospace Engineering Dissertation: "The Modeling and Experimentation of Hypersonic Turbulent Boundary Layers With and Without Thermal Nonequilibrium" Chair: Rodney Bowersox Kaiyu Cao "Integration of Pumping Profile Design and Water Dissertation: Management Optimization for Shale Gas Production Systems" Chair: Joseph S. Kwon Jingfan Chen Dissertation: for Brain-Specific Drug Delivery" Chair: Ya Wang Jinhao Chen......Computer Engineering Dissertation: "Roundoff-Error-Free Solution to Sparse Linear System: Low-Rank Modification" Chair: Timothy A. Davis Dissertation: "The Service Worker Hiding in Your Browser: Novel Attacks and Defenses in Applified Websites" Chair: Guofei GuMechanical Engineering Byung-Hee Choi..... Dissertation: "Numerical Simulation of Flow through a Piping System - Recirculation and Mixing" Chair: Nagamangala Anand Co-Chair: Yassin Hassan Kenny Chour "Methods for Solving the Multi-UAV Rendezvous Dissertation: Recharging Problem and Variants" Chair: Sivakumar Rathinam "New Spatially Dependent Models for Web Lateral Dissertation: Dynamics and Model-Based Designs for Control of Web Lateral Position and Slope" Chair: Prabhakar Pagilla Vedang Mohanrao Deshpande Aerospace Engineering

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Raktim Bhattacharya

"Sparse Sensing and Actuation Architectures with Optimal Precision and Guaranteed *H2/H∞* Performance"

Dissertation:

Chair:

Ranging (Pair) Device Based on Water Immersible Micro Scanning Mirrors (WIMSM)" Iun Zou Chair: Co-Chair: Dezhen Song Ian Johnny Echols Chemical Engineering Dissertation: "Layer-by-Layer Assembly of MXene-Based Thin Films" Iodie L. Lutkenhaus Chair. Co-Chair Micah Green of Remote Monitoring Medical Devices" Chair: Gerard Cote Michael I. McShane Co-Chair:

Rod Bundles With Spacer Grids"

Chair: Yassin Hassan

Gunner Smith Fritsch Aerospace Engineering

Dissertation: "Robust Approaches to Nonlinear Filtering with Applica-

tions to Navigation"

Chair: Kyle DeMars

Dissertation: "Solid Electrolyte Formation in LI-Metal Batteries and

LIFSI/TMP Electrolyte"

Chair: Jorge Seminario

Yang Gang......Mechanical Engineering

Dissertation: "Sustainable and Scalable Synthesis of Metal-Nitrogen-Carbon Catalysts for Efficient Electrochemical CO2

Reduction"

Chair: Ying Li

Dissertation: "Novel Approaches in Classification Error Estimation,

Predicting Generalization in Deep Learning, and Hybrid

Compartmental Models"

Chair: Ulisses Braga Neto

Dissertation: "Multi-Channel Receivers for Wireless and Wireline

Communication Systems"

Chair: Sebastian Hoyos

"Evaluation of an Acute Animal Model of Heart Failure with Preserved Ejection Fraction and Simulation with

Consideration of the Pulmonary Baroreceptor Reflex"

Chair: John Criscione

cations" Manoranjan Majji Chair: Co-Chair: Kentaro Hara Dissertation: Cognitive Biomarkers" James E. Hubbard, Ir. Chair: Co-Chair: Mark Balas Multi-Task Learning" James Caverlee Chair: Minki Hong..... Biological and Agricultural Engineering "Representing Hydraulically-Based Stream-Hillslope-Dissertation: Continuum in the National Water Model for Improved Hydrologic Predictions: Catchment-Scale Application of Boussinesq Theory" Chair. Binayak Mohanty Human-Robot Collaboration" Chair · Ranjana MehtaMechanical Engineering Chair: Prabhakar Pagilla Co-Chair: Dvahg Swaroop Qin Huang..... Dissertation: "Big Data Algorithms with Limited Local Resources" Chair. Iianer Chen "Assessing the Impact of the Anti-PEG Response on Tissue Dissertation: Engineering Efficacy with PEG Hydrogels" Chair: Daniel L. Alge Fernando Xavier Jarrin Perez Biological and Agricultural Engineering Dissertation: "The Suitability of the SWAT Model to Perform Hydrolocial Assessments in High-Elevation Neotropical Catchments" Chair: Vijay Singh Himanshu Shekhar JhaPetroleum Engineering Dissertation: "Production Forecasting in High Gas-Oil-Ratio Wells" Chair: William Lee Co-Chair: Thomas A. BlasingameBiomedical Engineering Aditya Katiyar Dissertation: "Studying Nuclear Deformation During Migration of

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Tanmay P. Lele

Chair:

Cells through Confining Environments

pling: 3D Solid Finite Element and Efficient Beam Model" Chair: Alan Palazzolo Jinwoo Kim Interdisciplinary Engineering Dissertation: "Biosensing of Location-based Environmental Distress of Pedestrians for Walkable Built Environments" Chair: Changbum R. Ahn Co-Chair: Theodora Chaspari Civil Engineering Xiaoqiang Kong . . . "Incorporating Mobility Information into an Epidemio-Dissertation: logical Model to Model Infected Cases at the Onset of COVID-19 Pandemic" Chair: Yunlong Zhang Code & Integration within the Multi-Purpose, Multi-Physics MOOSE Computational Framework" Chair: Jean C. Ragusa Jonathan David Dionela Lasco Civil Engineering Dissertation: "Development of NRCS Peak Rate Factors for Hydrologic Modeling in Texas" Chair: Francisco Olivera Jiawei Li..... Dissertation: "Hydraulic Fracture Height Growth in Laminated Shale Formations" Kan Wu Chair: Ming Li Industrial Engineering Dissertation: "Experimental Investigation and Modeling of Powder-Bed Additive Manufacturing Processes" Chair. Zhijian Pei Co-Chair: Cháo Ma Wei Li..... Industrial Engineering Dissertation: "Design and Fabrication of Photo-Thermal and Thermo-Electric Materials and Systems" Chair: Shiren Wang Xudong Li Civil Engineering "Modeling and Forecasting Hurricane Floods over Coastal Dissertation: Urban Watersheds" Chair: Huilin Gao Yaguang Li "Machine Learning Techniques for Performance Driven Dissertation: Analog IC Layout' Chair. Jiang Hu Guanyang Liu..... Chemical Engineering Dissertation: "Multiscale Model-Based Design for Inhibition of Thermal Runaway in Free-Radical Polymerization" Chair: Benjamin A. Wilhite

"Topology and Position Aware Graph Neural Networks" Dissertation: Chair: Shuiwang Ji Yijing Liu Electrical Engineering
Dissertation: "System Dynamics Modeling of Synthetic Power Grids Dissertation: with High Renewable Penetration Level" Chair: Thomas Overbye Co-Chair: Katherin M. Davis Graphene Quantum Dots" Chair: Qingsheng Wang Storage Recovery Systems and Enhanced Infiltration Systems" Chair. Gretchen R. Miller Dissertation: "The Dual Mesh Control Domain Method for Linear and Nonlinear Convection-Diffusion Equations in Two Dimensions" Chair: Junuthula Reddy Johnathan Tyler McKenzie.......Industrial Engineering "Countering Task-Induced Cognitive Fatigue via Rotation Dissertation: of Tasks with Contrasting Resource Demands" Chair: Thomas K. Ferris Guanxiong MiaoMechanical Engineering "Binder Jetting Additive Manufacturing: Fundamental Dissertation: Studies on Powder Spreading" Chair: Chao Ma Co-Chair: Zhijian Pei Materials Science and Engineering Jacob Lee Mingear Dissertation: "Enabling High Power Density Niti Shape Memory Alloys Actuators Using Liquid Metal Driven Energy Circuits Faciliated by Additive Manufacturing and Surface Engineering" Chair: Darren J. HartlMechanical Engineering Subodh Mishra..... Dissertation: "Multi-Sensor Registration for Autonomous Systems" Chair: Srikanth Saripalli Dissertation: Electric Demand in Buildings" Chair. David Claridge John Patrick Mulloy, Jr.. Mechanical Engineering Dissertation: "Erosion of Hypersonic Warhead by Nuclear Dust Cloud" Impact"

Yassin Hassan

Chair:

"Ion and Electron Transport in Porous Media for Electro-Dissertation:

chemical Energy Storage System"

Chair: Choongho Yu

"Anaerobic Digestion and Pretreatment Techniques that Dissertation: Enhance the Digestibility of Lignocellulosic Biomass"

Chair: Mark Holtzapple

"An Investigation Into Modeling Heat Transfer In Dissertation:

Polyethylene Molecular Crystal Systems with Molecular

Dynamics"

Chair: Tahir Cagin

Chair.

"Multiparametric Optimization Strategies For Process Dissertation:

Operations Under Uncertainty" Efstratios Pistikopoulos

Trent Forrest Parker... Chemical Engineering

Dissertation: "Application of Safety Triad in Relation to Chemical

Hazards"

Chair. Qingsheng Wang

put in 5G, Wi-Fi and Storage"

Chair: Seong G. Choi

"From Fatigue-to-Fracture: Probabilistic Total-Life of Dissertation:

Steel Bridge Structures"

John Mander Chair.

Abhinav Prakash Industrial Engineering

Dissertation: "Novel Function Estimation and Comparison Methods

with Applications in Wind Power Curve Modeling"

Chair: Yu Ding

Rameez Riyaz Qureshi Civil Engineering

Dissertation: "Community Disaster Recovery Resourcing Strategy

Design and Assessment"

Chair: David Ford

"Mechanisms and Implications of Kink-Banding in Dissertation:

Lavered Materials"

Ańkit Srivastava Chair. Miladin Radovic Co-Chair:

Jay Kamlesh RavalMechanical Engineering

"Visualization and Analysis of Tool-Fluid Interactions in Dissertation:

Through-Tool MQL Drilling"

Chair: Li-Jung Tai

Robert William Reese Biomedical Engineering "Strategies to Augment Mesenchymal Stem Cell Mediated Dissertation: Bone Regeneration in Fracture, Fusion, and Osteolytic Lesions' Chair: Roland Kaunas Peter A. Renner......Mechanical Engineering Dissertation: "Adaptive Additively Manufactured High-Performance Thermal Coatings" Chair. Hong Liang Emilio Jose Rocha Coutinho......Petroleum Engineering Dissertation: "Embedding Reservoir Physics into Machine Learning" Eduardo Gildin Chair: Chair: Co-Chair: Thomas A. Blasingame Chair: Albina Tropina Pravin Saraswatula Civil Engineering "Durability Based Performance Evaluation of Bridge Dissertation: Deck High-Performance Concrete (HPC) Mixes Through Innovation in Pore Solution and Transport Properties" Chair · Anal Mukhopadhyay Co-Chair: Dan Zollinger Robert N. Saunders Industrial Engineering "Metal Additive Manufacturing Process-Structure-Dissertation: Property Relational Linkages Using Gaussian Process Surrogates" Chair: Alaa Mohamed H. Elwany Co-Chair: Dimitris Lagoudas Maryam Savari "Utilizing Human Feedback in the Soft Actor-Critic Algo-Dissertation: rithm for Autonomous Driving" Chair . Yoonsuck Choe Nathaniel David Schulz Civil Engineering Dissertation: "Investigation of the Relationship Between Bridge Rail Geometrics and AASHTO MASH Compliance" Chair: Stefan Hurlebaus Amirali Selahi......Biomedical Engineering "Lymphangion-Chip: Microengineering of Lymphatic Dissertation: Vascular Physiology and Pathophysiology" Chair: Abhishek Jain for Peak Electrical Demand Management" Chair. Bryan Rasmussen Yang Shen Civil Engineering Dissertation: "Hybrid Building Energy-Structure Performance Analysis" Chair: Matthew T. Yarnold

"Compressive Creep of Porous Gamma Phase Uranium Dissertation: Metal" Chair: Sean McDeavitt Kristin Nichole Stolte....Nuclear Engineering "-MeRA: A Physics Based Adaptive Mesh Refinement Dissertation: Method and Program for Mesh Based Monte Carlo Tallies" Pavel V. Tsvetkov Chair. Yang-Denis Su. "The Integration of Design, Control, and Inherent Safety" Dissertation: Chair: Efstratios Pistikopoulos Wei Trinh...... Dissertation: Large Systems Using the Matrix Pencil Method" Chair: Thomas Overbye "Convolutional Neural Network Optimization and Paral-Dissertation: lel Compressive Sensing Algorithms for Accelerated MRI Reconstruction" Chair. Iim Ii Co-Chair: Jian Tao Antoni Viros i Martin Aerospace Engineering "A Cognitive Assistant for Human-AI Collaborative Early Dissertation: Mission Formulation" Daniel Selva Valero Chair: Patrick Philip Walgren Aerospace Engineering "A Nonlinear Substructure Method for Efficient Reduced-Dissertation: Order Structural Modeling Based on a Classical Plasticity Framework" Chair: Darren J. Hartl Payton Ross Walker Computer Science Dissertation: "An Exposition of Speech-Based Threats in the Face of Emerging Technology" Chair: Nitesh Saxena Ran Wang Dissertation: "Decoupled Data-Based Control (D2C) for Complex Robotic Systems" Suman Chakravorty Chair: Co-Chair: Dileep Manisseri Kalathil Biological and Agricultural Engineering Xiao Wang "Activated Iron Media for Wastewater Treatment: Mecha-Dissertation: nisms for Anionic Contaminants Immobilization and Transformation" Chair: Yongheng Huang Dissertation: "Development of a Low-Order Multiphysics Analysis

Mark Kimber

Chair:

Framework for the Neutron-Irradiation of Samples in the

Versatile Test Reactor Rabbit Environment"

"Optimal Decision Making for Accelerating Scientific Dissertation: Discovery" Byung-Jun Yoon Chair. Co-Chair: **Edward Dougherty** System Abnormal Conditions" Chair. Le Xie Haoran Wu Chemical Engineering Dissertation: "Valorizing High-Strength Wastewater through the Carboxylate Platform via Methane-Arrested Anaerobic Digestion" Chair: Mark Holtzapple Ocean Engineering Chang Xu...... "Experiments on Instabilities and Energy Dissipation of Dissertation: Nonlinear Gravity-Capillary Waves" Marc Perlin Chair: Ziwei XuanElectrical Engineering "Deep Representation Learning: Applications in Joint Dissertation: Source-Channel Coding and Semantic Segmentation" Chair: Zixiang Xiong Co-Chair: Krishna Narayanan Pappu Kumar Yaday Biological and Agricultural Engineering Dissertation: "Artificial Intelligence-Based Computer Vision for Rapid Detection and Classification of Objects in Agricultural Situations" Chair: John A. Thomasson Co-Chair: Stephen W. Searcy Chun-Lin Yang Dissertation: "An Energy Based General Framework for Dynamical Complex Networks" Chii-Der Suh Chair: Xiaojing Yu Dissertation: "Deep Learning Approaches for Textual Data Generation" Chair: Anxiao Jiang Operation of Carbon Capture, Renewables and Energy Storage Systems" Chair: M M Faruque Hasan Materials Science and Engineering Mingzhen Zhao Dissertation: "Synthesis and Structure-Property Relationship of Polyolefin/Zirconium Phosphate Nanocomposites" Chair: Hung-Jue Su Qing Zhou..... Materials Science and Engineering Dissertation: "Effect of Crosslinker Flexibility and Crosslinking Density on Stereochemistry and Thermo-Mechanical Behavior of

Svetlana Sukhishvili

Chair:

3D Printable Diels-Alder Polymer Networks"

Chair: James Caverlee

College of Geosciences

Doctor of Philosophy

Monica Rae Barbery.Geophysics

Dissertation: "Frictional Weakening During Earthquake Slip on Faults: A Laboratory Study of Sliding-Surface Temperature Dur-

ing High-Speed Slip in Granite Under Biaxial Loading Conditions

Frederick M. Chester

Chair: Judith S. Chester Co-Chair:

Chenrui Diao..... Atmospheric Sciences

"The Time-Evolving Role of Anthropogenic Aerosols in Dissertation:

Driving Global and Regional Climate Changes"

Yangyang Xu

..... Oceanography Xiliang Diao

"Open Ocean Polynyas and Antarctic Slope Current in Dissertation:

High- Resolution Earth System Model Simulations"

Chair: Achim Stoessel

Chair:

.....Oceanography James Michael Fiorendino

"Identifying Drivers of Toxic *Dinophysis* Bloom Dynamics Dissertation:

Along the Texas Coast"

Chair: Lisa Campbell

Dissertation: "The Role of Arctic Sea Ice Decline on a Changing Fresh-

water Budget"

Oliver W. Frauenfeld Chair:

Bum Soo KimOceanography

Dissertation: "Tracing Past Marine Methane Hydrate Dissociation and

Methane Release Events Using Lipid Biomarkers and

Isotopes"

Chair: Yige Zhang

Dissertation:

Szu-Ting Kuo

"Experimental Constraints on Heterogeneous Mechanical Properties of Rocks and Faults at Subduction Zones and

Numerical Investigations of Their Roles in Megathrust

Earthquake Characteristics"

Chair: Benchun Duan

Xiaoqing Liu Oceanography

"Making Sense of Climate Change Since the Late Miocene" Dissertation: Chair:

Yige Zhang

Meng Lyu Oceanography

Dissertation: "An Observational Study of the Impact of Gustiness on

Air-Sea Momentum Fluxes and Waves Using a Novel

Gustiness Metric"

Chair: Henry Potter

Sakib Mahmud Oceanography "Estimating Mixing Parameters Using Ocean Buoyancy Dissertation: Glider Hydrography and Vehicle Dynamics: Applications to Gulf Loop Current Structure" Chair: Steven Dimarco Correlation of Upper Wolfcamp (Wolfcamp-A Equivalent) and Middle Wolfcamp (Wolfcamp-B Equivalent) Strata in the Southern Delaware Basin" Chair: Mike Pope Co-Chair: Art Donovan "Ouantifying Dust Ice Nucleation Effects on Mixed-Phase Dissertation: Clouds and Contributions from Arctic Emissions and Agricultural Sources" Chair: Xiaohong Liu Richard Marshall SullivanOceanography Dissertation: "The North Atlantic Subtropical High Modulates Extreme Holocene Hydroclimate Variability in the Intra-American Chair. Peter Van Hengstum School of Law Juris Doctor Dominque Lee Law Aaron Daniel Leiter Law College of Liberal Arts Doctor of Philosophy Maxwell B. Allamong Political Science "Three Essays on Disaffection in American Politics" Dissertation: Chair: Paul Kellstedt Michaela Baca..... "'Thys boke ys myn': Evolutions of Queenly Literary Dissertation: Authority, 1460-1603" Britt Mize Chair: Co-Chair: Nandra Perry Xiaoxiao Bai Dissertation: "Essays on Fiscal Policy Effects on the Macroeconomy" Chair: Sarah Zubairy

"Against All Odds: Looking at Effects of Effort and Fatigue Dissertation: on Reward Sensitivity" Brandon Schmeichel Chair: Hannah K. Ballard Neuroscience "Brain Networks and Behavior in Aging Females: Impacts Dissertation: of Menopause, Sex Hormones, and Sleep Patterns" Jessica Bernard Chair: el Discurso" Chair: Maria Ouintana Iacob A. Canterbury. . . Dissertation: Geographic, And Cultural Variability On A Stable Isotope Mixing Model Of Ancient Maya Diets" Chair. Lori Wright Kimberly Angela Clough English Dissertation: "Women of Cover in Contemporary Transnational Literature" Chair: Marian Eide Dissertation: "A Hermeneutics at the Limit: The Prelinguistic Testimony of Human Finitude" Chair: Theodore George Micheal Joseph Fasulo..... "Struggling with Satan: U.S. Nuclear Strategy and Capa-Dissertation: bilities in the First Half of the 1970s" Chair: Iason Parker Angela Kay Gore Anthropology Dissertation: "Exploring the Lithic Landscape of the Nenana Valley, Interior Alaska" Chair. Kelly E. Graf Manuel A. Grajales II.. History "'Our Fight is Here': Coalition Networking and the Dissertation: Puerto Rican Anti-War Movement, 1940-1970" Chair: Felipe Hinojosa tered Electrodermal Stimulation Behaviors as Behavioral Measures of Sensation Seeking in Emerging Adult Nicotine Users" Chair: Sherecce FieldsPolitical Science Jongwoo Jeong Dissertation: "Essays on Party Identification Among the New Americans in the Era of Immigration and Polarization" Chair: Paul Kellstedt

Hwalmin Jin Dissertation:	"Essays on Political Control Over the Military in Civil-		
Chair: Co-Chair:	Military Relations" Matthew C. Fuhrmann Hyeran Jo		
Kendall Cheyenne John Dissertation:	"Attachment Style and Treatment Seeking Behavior in the		
Chair: Co-Chair:	Telemental Health Context" Carly E. McCord Gerianne Alexander-Packard		
Andrea Junqueira Mac Dissertation:	hado		
Chair:	Aggressive Crime-Fighting Policies" Guy Whitten		
Haena Kim Dissertation:			
Chair:	Brian A. Anderson		
Amy Joanne King Dissertation:			
Chair:	Hilaire A. Kallendorf		
Anton Leontyev Dissertation:			
Chair:	Takashi Yamauchi		
Jesus Jaime Lopez Dissertation:			
Chair:	Joseph M. Orr		
	McNeely		
Chair:	Sarah Gatson		
Namrata Nanavaty Dissertation:			
Chair: Co-Chair:	Vani Dawson Mathur Mary W. Meagher		
Josephine Rose Numm Dissertation:	"21st Century Protests in Ferguson, Missouri: How Protest Policing Strategies Lead to Technological Innovations		
Chair:	in Social Movement Communication" Joe Feagin		
Tristin Nyman			
Dissertation:	"Time Lag as a Moderator of Parental Control Effects on Child Anxiety Outcomes"		
Chair: Co-Chair:	Robert Heffer Rebecca Brooker		

April M. Paluka "Saving the Nazca Lines: An Ancient Site as a Post-WWII Dissertation: Battleground" Sonia Hernandez Chair: Michelle Christine Phillips Political Science Dissertation: "Prime Minister Discretion and Government Behavior" Chair. David Fortunato Jose Cheibub Co-Chair: James Hunter Plummer English "Public Spaces / Private Lives: Fictionalizing the Female Dissertation: Journalist, 1880-1946" Chair: David McWhirter Chair: Jason M. Lindo Robin Rose Saywitz Political Science Dissertation: "It Takes Two: Gender, Governance Institutions, and Public Administration Labor Markets" Chair · Scott I. Cook Manuel P. Teodoro Co-Chair: Economics Hedieh Tajali...... "Essays on Public & Health Economics" Dissertation: Ionathan Meer Shuo Tian Economics "Three Essays on Structural Auction Models" Dissertation: Chair: Yonghong An Co-Chair: Zheng Fang Michael Sean Totty..... Neuroscience "Thalamic Coordination of Prefrontal-Hippocampal Dissertation: Interactions Underlying the Retrieval of Fear Extinction Memories" Chair: Stephen Maren Sociology Shih-Keng Yen Dissertation: "Social Dynamics of Geographic Mobility" Chair: Ernesto Ámaral Ungyung Yi..... English "Exoteric Confession and Sad Literary Figures in Postwar Dissertation: America: Elizabeth Bishop, Anne Sexton, and Frank O'Hara" Shawna Ross Chair: Felicia Nicole York...Communication "Capturing Black Maternal Voices: A Culture-Centered Dissertation: Approach to Understanding the Health Care Communicative Experiences of African American Mothers" Chair. Lu Tang

College of Medicine

Doctor of Philosophy

"Tumor Microenvironment Remodeling in Triple Nega-Dissertation:

tive Breast Cancer Using Combination Therapy: One Size

Does Not Fit All"

Chair: David P. Huston

Bhagath Chirra Medical Sciences

Dissertation: "Novel Antimicrobials and Drug Delivery Systems to

Treat Multidrug Resistant Bacterial Infections"

Chair: Carolyn L. Cannon

Delivering Cu to Brain Cytochrome C Oxidase"

Chair: Gregg Wells Co-Chair: **James Sacchettini**

"FMRP's Striatal Function: Implications for Synaptic Dissertation:

Plasticity, Fragile X Syndrome, and Substance Use Disorders"

Laura N. Smith

Simin Pan Medical Sciences

"A Therapeutic Strategy Targeting the Dickkopf Wnt Dissertation:

Signaling Pathway Inhibitor 1 (Dkk-1) In Osteolytic Osteosarcoma Results In Tumor Suppression And Bone

Protection"

Chair: Carl A. Gregory

..... Medical Sciences John Culver Taylor...

Dissertation: "Streptococcus gallolyticus subspecies gallolyticus: A

Mechanism of Virulence"

Chair: Yi Xu

Chair:

Linying Zhang Medical Sciences

"Genome-Wide Analysis of DNA Replication Origins in Dissertation:

Tetrahymena Thermophila"

Chair: Geoffrey Kapler

Irma Lerma Rangel College of Pharmacy

Doctor of Pharmacy

School of Public Health

Doctor of Public Health

Leanne Sue Fawkes Public Health Sciences

"Residential Creosote Exposure: An Assessment of Dissertation:

Community Health and Environmental Health Risks in

the Greater Fifth Ward, Houston, Texas"

Chair: Garett T. Sansom Thomas J. McDonald Co-Chair:

Dissertation: "Informal Caregiving in the Digital Age"

Chair: Ping Ma

Co-Chair: Ellisa Jones-Mckyer

Months of a Pandemic in a College City"

Chair: Rebecca Fischer

College of Science

Doctor of Philosophy

Dissertation: "Inverse Problems Arising in Medical, LIDAR, and

Homeland Security Imaging"

Chair: Peter Kuchment

Aayushi Bajpayee....

"Structuring Ceramics Across Length Scales to Modulate" Dissertation:

Solid/ Liquid Interfaces"

Chair: Sarbajit Banerjee

Marko Baloh Microbiology

"The Early Stages of Clostridioides difficile Spore Germina-Dissertation:

tion"

Chair: Joseph A. Sorg

Populations of Swordtail Fish"

Chair: Gil Rosenthal Co-Chair: William Murphy

Wenmiao Chen

"Postsynthetic Modification of UIO-Type Metal-Organic Dissertation:

Frameworks (MOFS) for Advanced Heterogeneous

Catalysis"

Chair: Hongcai Zhou

Sherzod T. Madrahimov Co-Chair:

Hsu-Cheng Chiang ...

Dissertation: "High Gas Barrier Polyelectrolyte Complex Thin Films"

Chair: Jaime Grunlan

Dissertation: Chair: Anirban Bhattacharya Co-Chair: Debdeep Pati Dissertation: "Exploring the Extremes of Galaxy Evolution: Progenitors of Star-Forming Galaxies and Relics of Quiescent Galaxies" Chair: Jonelle Walsh Dissertation: "Multivariate Normal Probability, Truncated Sampling, and Approximation for Statistical Modeling" Chair: Debdeep Pati Hannah Fay Drake.... Dissertation: ties of Photoresponsive and Redox Active Metal-Organic Frameworks" Chair. Hongcai Zhou Emulsion Platform" Chair. **Emily Pentzer** Dissertation: "The Second Moment of Dirichlet L-functions Along a Coset" Chair: Matthew Young Indrajit Ghosh Dissertation: "Exploration of Densities from a Bayesian Perspective"
Chair: Debdeep Pati Co-Chair: Anirban Bhattacharya Alexei Sokolov Chair: Taylor Alexandra Hutchison Astronomy Dissertation: "Peering Through the Cosmic Fog: Spectroscopy of Galaxies During Reionization" Chair: Casey Papovich Brian Jeremy Kidd Statistics Dissertation: "Directed Graphs and Applications" Chair: Yang Ni Matthias S. Katzfuss Co-Chair: Anupam Kundu Dissertation: "Estimation of Jointly Constrained Mean-Covariance of Multivariate Normal Distribution" Chair: Mohsen Pourahmadi Ming-Che Lee Dissertation: "Fingerprint-Region and Low-Frequency Raman Spectroscopy of Biomolecules" Chair: Alexei Šokolov Co-Chair: Zhenhuan Yi

Guanxun Li Dissertation:	"New Variational and Sampling Algorithms for Large-		
Chair: Co-Chair:	scale Bayesian Model Selection Problems" Quan Zhou Jianhua Huang		
Huiling Liao Dissertation:	"Acquisition-Guided Sampling-Based Approach for		
Chair: Co-Chair:	Detection of Regions of Interest" Jianhua Huang Xiaoning Qian		
Aldrin Benzon Lug Dissertation:	ena Biology "Chasing Clock-Controlled and Migratory Genes in the Monarch Butterfly Brain Using Omics"		
Chair:	Christine Merlin		
Dissertation:	ourn		
Chair:	Michael Anshelevich		
Anushree Mondal Dissertation:			
Chair:	Tadhg Begley		
Jared S. Morse Dissertation:			
Chair:	Wenshe Ĺiu		
Debsuvra Mukhopa Dissertation:	adhyay		
Chair:	Girish Agarwal		
Brianna Lynn Myre			
Chair:	Duncan Mackenzie		
Balakrishnan Naga Dissertation: Chair:	raj		
Maelani N. Negrito Dissertation:	"Controlling the Properties of Graphene via Tailored Substrate Interactions"		
Chair: Co-Chair:	James Batteas Matthew T. Sheldon		
Kristyn Jae Pantoja Dissertation:	"Methods for Model Discrimination and Evaluation: An Experimental Design, a Microbiome Modeling Frame-		
Chair: Co-Chair:	work, and a Measure of Prior Impact" Huiyan Sang David E. Jones		

in Psychology and for Dynamic Modeling of Zero-Inflated Directed Networks" Chair: Valen Johnson Co-Chair: Yang Ni Tian Qiao Dissertation: "Synthesis of Lead Halide Perovskite Nanocrystals for Studying Their Optical, Magnetic and Charge Transfer Properties" Chair: Dong Son Neuroscience Josephina Amalia Rau..... Dissertation: "Morphine Undermines Recovery of Function After a Spinal Cord Injury: The Role of Glial and Kappa Opioid Receptor Activation" Chair: Michelle Schapiro "Dynamics All the Way Down: The Satellites, Streams, Dissertation: and Stellar Halo of the Milky Way in the Gaia Era" Chair. Louis E. Strigari Luther Dale Rinehart... "Uniform Acceleration Radiation with a Proca Field" Dissertation: Chair: Stephen Fulling Gabrielle Risica..... Dissertation: "Advanced Molecular Design for Heterometallic Single Molecule Magnets: Elucidating the Magnetic Properties of Lanthanide-[1]metallocyclophane Complexes' Chair: Michael Nippe Dissertation: "Bridging Atomistic, Mesoscale, and Systems Perspectives in the Design of Vanadium-Based Energy Storage Technologies" Chair: Sarbajit Banerjee Dissertation: "K2P Channel Lipid Binding and Structural Impacts" Chair: Arthur Laganowsky "Spectroscopic and Structural Characterization of Reactive Dissertation: Metal Nitrenoids" David C. Powers Chair: Jiayi Wang "Reproducing Kernel Hilbert Space Modeling in Func-Dissertation: tional Data Analysis and Causal Inference" Chair: Raymond Ka Wai Wong Jizhou Wang Dissertation: "Molecular-Spectroscopic Techniques for Label-Free Imaging" Chair: Alexei Šokolov

Dissertation: Chair: Eric Rowell Dissertation: "Computational Investigations of Chiral-at-Metal Complexes and Their Enantioselective Reactions" Chair. İohn Gladvsz Michael Hall Co-Chair: String Theory and Condensed Matter Physics' Dimitri Nanopoulos Co-Chair: Katrin Becker Learning Potential in Graphene" Winfried Teizer Chair: Chair: Irina Gaynanova Bowen Zhang Dissertation: "Density Functional Theory Calculations of Iron Porphyrin, Dimetallo-Tetrylene and Astatine Systems: Revealing the Electronic Structure and the Reaction Mechanism" Chair: Michael Hall Fangting Zhou "Causal Graphical Models: Heterogeneous Data Meet Dissertation: Structure Identification" Chair. Yang Ni Dissertation: "Application and Fast Inference Method of Spatial Point Patterns" Chair: Huiyan Sang Co-Chair: Mikyoung Jun College of Veterinary Medicine and Biomedical Sciences Doctor of Philosophy Caitlin Patricia Castaneda Biomedical Sciences Dissertation: "Dissecting Genomic Factors of Stallion Fertility" Chair: Terje Raudsepp Biomedical Sciences Xin Fang

ductive Physiology and Pathology"

Qinglei Li

Dissertation:

Chair:

"Using Conditional Gene Manipulation to Study Repro-

Juan Camilo Hernandez Aviles Biomedical Sciences "Studies on the Acrosomal Function of Sperm from Fertile Dissertation: and Subfertile Stallions" Charles Love Chair: Patrícia Eri Ishii Miyagawa Biomedical Sciences ${\it ``Intestinal Permeability in Dogs with Chronic Enteropathy''}$ Dissertation: Chair: Jan Suchodolski Co-Chair: Jonathan A. Lidbury Protect Foals Against Rhodococcus equi Pneumonia" Chair: Noah Cohen Theiler's Murine Encephalomyelitis Virus in a Genetically Diverse Mouse Panel" Chair: Candice L. Brinkmeyer Langford Co-Chair: Raquel R. Rech Danielle Renee Michaud Biomedical Sciences "The Grisly World of MYOSIN-5A: Griscelli Syndrome Dissertation: Type 1 and the Search for an Effective Gene Therapy" Chair: Peter P. Nghiem Biomedical Sciences "The Role of TGF β Signaling and Epigenetic Regulators Dissertation: in the Female Reproductive Tract" Chair: Qinglei Li

Academic Regalia

Academic institutions throughout the world have created a wide variety of customs including distinctive dress, color and ceremony to indicate the accomplishments of scholars. English traditions originating at Oxford and Cambridge led to the development of American academic regalia. By the twentieth century, institutions of higher learning in the United States had adopted a well-defined code of academic costume, which now includes the identification of the different academic degrees by distinctive gowns, hoods and colors. For instance, the baccalaureate gown is worn closed and is identified by long, pleated front panels and long, pointed sleeves. The master's gown has very long sleeves, closed at the bottom, and the arms of the wearer are placed through an opening in the front of the sleeves. Doctoral gowns are distinguished by velvet panels around the neck and down the front of the gown. Three horizontal black velvet bars also mark the doctorate. In America, the hood is the most colorful feature of academic regalia. The bachelor's hood, when worn, is comparatively short; the master's, a bit longer; and the doctor's, at four feet, reaches far down the wearer's back. The outside of the hood is black and is bordered with a two-, three- or five-inch band of velvet in the color representing the degree received, and the hood is lined with the colors of the granting institution. For instance, the Master of Arts hood from Texas A&M has a white border, for the discipline color of Arts, Letters and Humanities, with a maroon and white lining; the Master of Science hood has a golden yellow border, for Science, with a maroon and white lining; and the Doctor of Philosophy hood has a border in the blue of Philosophy with a maroon and white lining. Among the other discipline colors are Agriculturemaize, Architecture - violet, Business - olive green, Education - light blue, Engineering—orange and Veterinary Medicine—gray. These colors represent the degree earned, not the academic major. The Ph.D. in Engineering, for example, would normally wear the dark blue of Philosophy on the hood and gown instead of the orange of Engineering. Official guests of the University and members of the Board of Regents wear the doctor's gown with the blue of Philosophy on the front and hood.

Ceremonial Mace

The University mace, a gift of the Class of 1990, leads the academic procession at commencement and on other special ceremonial occasions. Historically, the use of a mace dates back to the Middle Ages and was carried before or placed near a magistrate or other dignitary as an ensign of authority. This mace is made of sterling silver, walnut and oak and depicts various University symbols. It was designed by Rodney Hill, Texas A&M architecture professor who also carved the staff. Silversmith Lane Coulter '78, of Santa Fe, prepared the silver head of the mace and Lars Stanley '74, of Austin, designed and manufactured the stand.

Gonfalons

The gonfalon, a flag that hangs from a crosspiece or frame, originated in the medieval republics of Italy as an ensign of state or office. Gonfalons have been adopted in many universities around the world as college or institutional insignias. The gonfalons displayed represent the colleges of Texas A&M University. The colors of the University, maroon and white, are joined together in a pattern common to all of the flags. The top portion is the designated color for each unit. The white field serves as a background for the symbol of each.

College of Agriculture and Life Sciences. On a ground of white appears an emerging sun of yellow and russet rays. Yellow, the discipline color of science, russet, the discipline color of natural resources, and the center orange, color of engineering, combine to illustrate the intellectual interest in human and biological systems and structures. The interweaving ring encompasses the dawn making a full circle of life.

College of Architecture. The hexagonal symbol is composed of three colors that represent the solid foundation of the college. Our Aggie core values (maroon) connect limitless possibilities and opportunities in learning, scholarship, and engagement for the college (blue) with the energy of creativity, innovation, and design to address them (yellow). The striped ribbon represents the drivers of the college's vision of quality of life, place, and human endeavors which is intertwined with a solid ribbon that represents where this vision is applied: the natural, built, and virtual environments. The six segments defined by the alternating striped and solid ribbon represent the six disciplinary domains of the college: urban planning, architecture, landscape architecture, land and property development, construction science, and visualization.

Mays Business School. The golden knot symbolizes unity and coordination of the disciplines of business administration. Surrounding the golden knot, a field of purple represents the rank of authority. The foundation of lozenges under the triangle illustrates the flow of order.

College of Dentistry. The color lilac has been associated with dentistry since the 1800s, symbolizing compassion and inspiration. Upon it, rests the Greek Omicron, O, representing the first letter in "odont," meaning tooth, along with an interlaced Delta representing the letter D for Dentistry. The inner-most component of the emblem depicts healing, as signified with a serpent intertwined around the ancient cauterizing rod of the Greek god of healing, Asceplius. Included in the emblem, are 32 leaves and 20 berries representing both the primary and secondary teeth.

College of Education and Human Development. The flourishing flame blazoned with gold, light blue and royal purple signifies the burning zeal of the three missions of education--teaching, research and service. The hands hold the spiritual, social and intellectual flame of education.

College of Engineering. As the triangles collaborate alongside each other, projecting a diamond shape, they depict the strong relationship between the diverse engineering disciplines. The use of mathematics, science and technology provide the foundation of solving today's challenging ideas between and within each engineering department. The center illustrates a circuit board to express the continuing growth in technology and engineering today, resulting in new industries and opportunities. The cohesive elements of this design work together as a whole symbolizing communication, interaction, teamwork, and balance in Engineering as the green, blue and navy color palette represents energy, loyalty, wisdom, professionalism and ambition.

College of Geosciences. The white field reveals a yellow sun representing our surrounding atmosphere. The mountain peaks and the horizontal band of golden land represent the lithosphere. The banded waves of white signify the hydrosphere. The atmosphere, lithosphere and hydrosphere form the total environment for life in our world.

Bush School of Government and Public Service. The star symbolizes pride and heritage in our great state of Texas. The two lines on either side of the star represent our connection with the past, and with the future, in an effort to build on experiences from history, while contributing and presenting new opportunities to future generations.

School of Law. A widely accepted symbol of peace, the olive leaves highlight one of the most critical contributions of law and legal order to human development. Curving inwards, they also bring to mind the Aggie Ring – and the circle of fellowship and community it represents. Lady Justice symbolizes the values our graduates bring to bear in their careers: a spirit of objectivity (blindfold), an unwavering commitment to fairness (scales), and the strength necessary to pursue it (sword). The six stars, finally, represent Texas A&M's Core Values – Leadership, Respect, Loyalty, Excellence, Selfless Service, and Integrity – essential requirements of not only members of the legal profession, but all those who study the law and seek to advance justice, fairness, and the Rule of Law.

College of Liberal Arts. The golden torch symbolizes the various disciplines lighting the path to our goal, "Knowledge for Life." The circle of blue, the traditional color of knowledge, represents the college's unending, unbroken commitment to scholarship, learning, and responsible citizenship.

College of Medicine. The white field provides a background for the Aesculapian staff and serpent, long used as the symbol of the healing arts. The green color is the same displayed on the hoods and robes worn for the degree of Doctor of Medicine.

College of Nursing. The stars on the College of Nursing gonfalon represent caring, innovation and empowerment, while the cross symbolizes the origins of nursing. The candle honors the founder of nursing, Florence Nightingale. Apricot is the color of nursing.

Irma Lerma Rangel College of Pharmacy. The mortar and pestle on the College of Pharmacy gonfalon symbolize the tools of traditional pharmacy. The Rx is from the Latin, "Take thou."

School of Public Health. The anchor and caduceus are adapted from the national Public Health Service, which evolved from the Marine Hospital Service to the Public Health and Marine Hospital Service, and finally became the U.S. Public Health Service. The star represents the linkage of the School of Public Health with the Texas A&M Health Science Center and the State of Texas. The salmon color is the color of the public health hoods.

College of Science. This symbol's segments represent the five departments of the College of Science--Biology, Chemistry, Mathematics, Physics and Astronomy, and Statistics. The interweaving of each depicts their close relationship to each other. The inner quilting represents the intellectual search in science and its continuing growth.

College of Veterinary Medicine and Biomedical Sciences. Resting upon a ground of purity, a white snake stands for the science and the art of prevention, cure or alleviation of disease and injury to animals. It is found entwined around a herald's green staff—the symbol of service. The golden radiant triangle atop the Aesculapius illustrates the breadth of veterinary medical science.

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CONGRATULATIONS NEW GRADUATES! WELCOME TO THE ASSOCIATION OF FORMER STUDENTS!

Today, as a proud graduate of Texas A&M University, you will turn your Aggie Ring so that the Class year faces away from the body symbolizing a readiness to face the world.

Being an Aggie is a lifelong experience that is supported by the Aggie Network. By staying involved with Texas A&M through The Association of Former Students, together, we will continue the work of passing back the core values, traditions and experiences that make Texas A&M unique.

As you begin your new journey, we ask that when you're ready, you consider helping to pass it back to future generations. Join the Century Club at a 50% discount and proudly showcase your very own Century Club member decal.



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The Association of Former Students is **HERE** for Aggies during their days as students and former students, **THERE** for Aggies as they make their way around the world and **EVERYWHERE** that the Aggie Network needs us to be.

