

VIRTUAL QUEST
digitallibrary.oswego.edu/quest

— 2020 —

QUEST

EXPLORE. CREATE. LEARN.



OSWEGO
STATE UNIVERSITY OF NEW YORK

WELCOME TO QUEST

Welcome to SUNY Oswego's Virtual 2020 Quest event through Oswego's Digital Library. This virtual symposium provides an opportunity for our campus to come together and celebrate Oswego students' scholarly and creative works from our remote locations. It highlights what is best about an Oswego education by showcasing our students' best works and how our faculty support these tremendous efforts even during challenging times.

I encourage you to support your friends and colleagues that are engaging in this year's digital experience and take the opportunity to explore the variety of presentations. Spend some time not only searching for people from your own academic unit, but also engage and embrace the range of topics and fields presented from across all our schools and colleges. Thanks to all who have persevered and participated in this year's digital Quest experience. I appreciate your commitment to our educational endeavors and SUNY Oswego traditions.

Scott R. Furlong,
Provost and Vice President of Academic Affairs, SUNY Oswego

PRESENTATION INDEX

Anthropology	Page #	Using Dispersive Liquid Liquid Microextraction.....	<u>7</u>
Anthropology Capstone I.....	<u>4</u>	Analysis of Chemically Modified Silica Gel Using	
Anthropology Capstone Ii.....	<u>4</u>	Nmr Spectroscopy and Sem.....	<u>7</u>
Anthropology Capstone Iii.....	<u>4</u>	Crystallization of the Lectin-Like Domain of Thrombomodulin.....	<u>8</u>
Anthropology Capstone Iv.....	<u>4</u>	An Investigation of the Function of Enzyme 3l1w.....	<u>8</u>
Anthropology Capstone V.....	<u>4</u>	Developing in Vitro Crispr-Cas9 System Technique	
		to Target Invader Dna.....	<u>8</u>
Art and Design	Page #	Determining the Function of Enzyme 3dl1.....	<u>8</u>
Department of Art and Design Showcase.....	<u>5</u>	Multicomponent Synthesis of 1,4-Disubstituted-1,2,3-Triazoles	
		Using N-(Phenyl)-N-2-Pyridyl Urea as Ligands.....	<u>9</u>
Biological Sciences	Page #	Synthesis and Characterization of a Bimetallic Complex.....	<u>9</u>
Biochemical Analysis of Browning Activities in Apples.....	<u>5</u>	Ru(li) Complexes for Aqueous Nitrile Hydration.....	<u>9</u>
Factors Influencing Variations in Monkey Problem Solving.....	<u>5</u>	Investigating Photoemissive Properties of Copper Cubanes.....	<u>9</u>
Comparing Male Northern Cardinal Plumage			
Color Between Rural and Urban Habitats.....	<u>5</u>	Communication Studies	Page #
Multiple Years of Manual Cattail Removal Slows the		Current Issues in Media Law.....	<u>10</u>
Expansion of an Invasive Cattail in a Sensitive		Challenge Debate With Suny Brockport.....	<u>10</u>
Central New York Fen.....	<u>5</u>	Gender and Race in the Media.....	<u>10</u>
Using Your Head! Finite Element Analysis of		Showcasing Student-Designed Communication	
Head-First Burrowing Pygopodid Geckos.....	<u>5</u>	Research Projects.....	<u>10</u>
Isolation and Identification of Digenean		Strategic Communication Research.....	<u>10</u>
Parasites from Freshwater Snails in Rice Creek.....	<u>6</u>	The Impact of Smart Phones on Teenagers.....	<u>10</u>
Strategies for Cost Effective Production of Transgenic Mice.....	<u>6</u>		
Building an Inexpensive Electroporator to		Computer Science	Page #
Transform Dictyostelium Discoideum.....	<u>6</u>	Findingfive Story Store - Development and Implementation.....	<u>11</u>
Genetic Interaction Between Adhesion Regulators Rap1		Transition - A Prize Winning Hackathon Project to Create a	
and Kinase.....	<u>6</u>	Wholesome Environment for People to Gain a Deeper	
Responsive to Stress B in Dictyostelium Discoideum.....	<u>6</u>	Understanding of Their Gender Identities and Sexual Orientation.....	<u>11</u>
The Early Life of Asa Gray in Central New York: America's		A Collaborative Robot Coordination System Based on Xbee.....	<u>11</u>
Greatest Botanist, Darwin's Friend, and Evolution Advocate.....	<u>6</u>	Remote Presentation.....	<u>11</u>
Microplastic Recovery from Lake Ontario		Video Game Challenge.....	<u>11</u>
Chinook and Coho Salmon.....	<u>6</u>		
Correlation Between Limb Length and Patterns of Stress		Creative Writing Program	Page #
in the Skull of Burrowing Skinks.....	<u>6</u>	52nd Annual Charles F. and Miriam B. Davis	
Effects of Surface Composition on Dictyostelium Adhesion		Creative Writing Awards.....	<u>11</u>
and Mechanosensation.....	<u>6</u>	Elemental Monologues: Earth.....	<u>11</u>
Chemistry	Page #	Curriculum and Instruction	Page #
Measuring Peripheral Testosterone and		Seeing Through Their Eyes.....	<u>12</u>
its Relation to Digit Ratio and Sexual Behavior.....	<u>6</u>	Instructional Media and Technology:	
Inhibition of Yeast Growth by Hop Extracts.....	<u>6</u>	Presentations by Five Visiting Scholars.....	<u>12</u>
Effects of Heavy Metals on Cardiovascular Health		Educational Spaces in International Places:	
in Children: Mediation Analysis.....	<u>7</u>	Reflections from the London & Benin Programs.....	<u>12</u>
Removal of Volatile Organic Compounds from		Benin: Perceptions and Realities.....	<u>13</u>
Indoor Air Using House Plants.....	<u>6</u>	Struggles in Education for All.....	<u>13</u>
Analysis of Diphenhydramine (Dph) in Urine		Optimal School Scheduling for Student Learning.....	<u>13</u>

Electrical and Computer Engineering	Page #	Political Science	Page #
Three Joint Robotic Arm.....	13	Can't We All Get Along? Finding Common Ground in a Polarized World.....	18
High-Voltage Power Supply for Ionic Wind-Driven Systems.....	13	Psychology	Page #
Tagbots: Exploring Role Changing and Team Member Identification in a Polymorphic Multi-Robot System.....	14	Mental Imagery and Aphantasia.....	19
Automated Home Security.....	14	Mediating Effects of Attachment Style on Traumatic Experience and Psychopathological Symptomatology.....	19
Smart Gym.....	14	Resource Constraints on Embodied Human Foraging Behavior.....	19
Smart Lot: Smart Parking With Image Classification.....	15	Early Adverse Childhood Experiences and Big Five Personality Traits as Mediators of Emergent Psychopathological Symptomatology.....	20
Health Promotion and Wellness	Page #	Sex Differences in the Association of Threat Bias and the Amygdala.....	20
Prevalence of Food Insecurity Among College Students At a Mid-Atlantic University.....	15	Utility of Eye Tracking in the Investigation of How Children Resolve Linguistic Ambiguities in the Presence of Classroom Background Noise.....	20
Discover Wellness.....	15	Redeveloping and Piloting of A Children's Social Skills Program.....	21
History	Page #	Internet Addiction: Gaming, Social Media, and Role of Personality.....	21
Senior Seminar in History.....	15	School of Business	Page #
History: Faculty Papers on China.....	15	Internal Carbon Pricing Model At Suny Oswego.....	21
South Asian Sacred Spaces.....	15	Chinese Shadow Banking Operation Mechanism and Risk Transmission.....	21
Honors	Page #	Impression Formation: Interactive Effects of Attire and Gender on Perceptions of Ethical Behavior.....	21
What It Means to Be a Refugee in Central New York.....	15	Warren Buffett's Stock Picking Methodology.....	21
Human Development	Page #	Evaluation of Graham Manufacturing's Equity.....	21
Human Development Capstone Experience.....	16	School of Education Teacher Opportunity Corps li (Soe Field Placement Office)	Page #
Linguistics Program	Page #	Voices from Toc li Scholars: Why Representation Matters, the "Cultureless" Students.....	22
Working on the Kiowa Dictionary Project.....	16	Technology	Page #
Mathematics	Page #	The Art of Mechatronics and Manufacturing Technology: A Demonstration.....	22
Covers & Perfect Hash Functions.....	16	Theatre	Page #
Free Resolutions and Combinatorial Objects.....	16	'Acting Shakespeare' Selections.....	22
Modern Languages and Literatures	Page #	Research to Performance: Dynamic Devised Plays.....	22
Modern Languages Honor Societies Induction Ceremonies.....	16	We Band of Prodigals: the 'Kill Shakespeare' Live Graphic Novel Process.....	22
Studying Abroad: Getgo Travel Grant Experiences Part I.....	16	Kill Shakespeare Capstone Presentation.....	22
Studying Abroad: Getgo Travel Grant Experiences Part II.....	16	"Um, Actually...": the Dramaturgy of 'Dungeons and Dragons' Culture in 'She Kills Monsters'.....	23
Office of International Education and Programs	Page #	Play Reading: "Most Likely to Succeed" by Sean Patrick Ryan.....	23
Get Uncomfortable: How to Overcome Fear and Culture Shock Abroad.....	17		
Philosophy	Page #		
What are Theoretical Entities?.....	17		
Physics	Page #		
Transition Metal Doped Quantum Dots for Photovoltaic Applications.....	17		
The Hydrogen Ionization Front and Stellar Photosphere Interaction in Radially Pulsating Variable Stars.....	17		
Fabry-Perot Interferometer in Laser Spectroscopy Applications.....	17		
Measuring the Hyperfine Splittings of Rubidium 5p3/2 Excited State Using Saturated Absorption Spectroscopy.....	18		
Investigating the Nature of the Hydrogen Ionization Front in Classical Cepheids.....	18		
Magnetic Levitation.....	18		

QUEST 2020 PRESENTATIONS

► ANTHROPOLOGY

Anthropology Capstone I

The Colorism of Black Hair Culture in America

Dorcas Afolayan

Racialization of Accents in the United States: Class and Race implications

Emani Blue

The Taxonomic and Phylogenetic Classification of the Tarsier (Tarsiiformes)

Hannah Brown

The Anthropology of Sex Education in NY State: The Pubic Hair Grooming Gap

A'liciah Carr

How Non-Standard Accents are affected in The Job Field

Samantha Clarke

Anthropology Capstone II

Archaeological Survey of the Richardson-Bates House Oswego, NY

Amanda Costa

Cultural Expectations of Gender Norms and Mental Health Impacts on Transgender and Non-gender conforming youths

Lauren Degnan

Women, Hysteria, and Madness in the Context of Asylums in the 18th and 19th centuries.

Allison Feely

The Structural Violence of the Health Care System Experienced by African-American Women

Tiffany Flores

Is the SUNY Oswego transportation system actually accessible? The Student Perspective

Lindsey Gancasz

Anthropology Capstone III

The Anthropology of Work in Modern America

Ryan Gannon

Genetic vs. Environmental Impacts on Human Fingerprints

Nate Goldstein

The Anthropology of Burial Treatments in the Modern World

Karla Hernandez-Paz

Unseen Human Costs of Crime Scene/Unattended Death Cleanup

Nicole Licourt

Beyond Organized Religion? Investigating Spirituality among College Students

Ryan Paternoster

▶ ANTHROPOLOGY

Anthropology Capstone IV

The Accessibility of Resources on a College Campus

Chelsie Scott

Mapping the Culture of the Nomadic Lifestyle: RV Living in NY

Stefinie Senquiz

The impact of Non-Native people on the Access by Native People to their Sacred Spaces

Tori Shaw

The Socioeconomic Context for Understanding the Impact of College Major on Post-Graduation Income

Rahsone Simpson

Understanding the concepts of mental health and culture in college students

Jasmine Tovar

Anthropology Capstone V

Style and Technology Exchange in Textiles in Ancient Anatolia

Haley Uitvlugt

Gaps in Knowledge: Dyslexia Teacher Training in Preservice Teachers

Carolyn Zeitz

▶ ART AND DESIGN

Department of Art and Design Showcase

This session will present a survey of students' creative research from the Department of Art and Design.

Kyle Curtis, Adam Kuhn, Megan Labosky, Jia Fu Liu, Yayu Liu, Tyler Morgan, Ngan Nguyen, Keri Ngyuan, Miles Petersen, Francesca Rescigno, Dawson Rieman, Jessica Sandy, Madelyn Smith, Abhishek Thapa

▶ BIOLOGICAL SCIENCES

Biochemical Analysis of Browning Activities in Apples

Christian DiBiase, Nathaniel Stahl

Factors Influencing Variations in Monkey Problem Solving

Abigail Cotner

Comparing Male Northern Cardinal Plumage Color Between Rural and Urban Habitats

Kristie Drzewiecki

Multiple Years of Manual Cattail Removal Slows the Expansion of an Invasive Cattail in a Sensitive Central New York Fen

Koty Kurtz, Kathryn Hunt

Using Your Head! Finite Element Analysis of Head-First Burrowing Pygopodid Geckos

George Gurgis

► BIOLOGICAL SCIENCES

Isolation and Identification of Digenean Parasites from Freshwater Snails in Rice Creek

Rebecca Wolff

Strategies for Cost Effective Production of Transgenic Mice

Kevin Cavalier

Building an Inexpensive Electroporator to Transform *Dictyostelium discoideum*

Ali Khan

Genetic Interaction Between Adhesion Regulators Rap1 and Kinase Responsive to Stress B in *Dictyostelium discoideum*

Gigi Niu

The Early Life of Asa Gray in Central New York: America's Greatest Botanist, Darwin's Friend, and Evolution Advocate

Jenna Gotte

Microplastic Recovery from Lake Ontario Chinook and Coho Salmon

Ryan Bailine, Derek Kuhn

Correlation Between Limb Length and Patterns of Stress In The Skull of Burrowing Skinks

Isaac Annal

Effects of Surface Composition on *Dictyostelium* Adhesion and Mechanosensation

Michelle Urman

► CHEMISTRY

Measuring Peripheral Testosterone and Its Relation to Digit Ratio and Sexual Behavior

Testosterone has been studied as a predictor of sexual behavior, aggressiveness, and is generally perceived as the hormone that is associated with 'male' behavior. This study aims to detect male testosterone levels in hair, nails, blood, and saliva using ELISA competitive enzyme assays. Part of this study will aim to analyze the reliability of the testosterone measurements in four biological matrices. In addition, a SIS/SES survey will be used to analyze participant's sexual inhibition and excitation in hopes of relating them to the individual's testosterone levels. Finally, the ratio of the 2nd digit to the 4th digit will be measured, which is indicative of prenatal testosterone exposure, in hopes of finding a correlation between prenatal and current testosterone levels.

Philip Mosher

Inhibition of Yeast Growth by Hop Extracts

In recent years many beer manufacturers have begun to follow the trend of increasing the amount of hops added into beer. With this occurring, the question of "Do hop extracts inhibit the growth of yeast?" arose. Yeast is one of the main ingredients essential for the creation of beer. It is crucial because the yeast converts the sugars from the malted barley into alcohol and CO₂, this step is known as fermentation. Without enough yeast, fermentation can be delayed leading to off flavors in the beer. to investigate this question YPD plates are used to grow different varieties of yeast. The growth of each yeast strain is tested with addition of various amounts of a variety of hops to the plates. Each hop variation contains a different percentage of alpha acid, which is tested to see the impacts of higher acid concentrations on yeast growth. to determine the impact the area of the colonies grown after three days of incubation is measured. The plates containing hops are compared to a control, which only contains yeast. The colony counts provide data to calculate percent inhibition, which has led to some evidence that hop extracts can inhibit yeast.

Kaitlyn Barney

Effects of Heavy Metals on Cardiovascular Health in Children: Mediation Analysis

The effect that heavy metals such as lead, mercury, and cadmium have on cardiovascular disease (CVD) risk are well documented. However, the mechanisms for this phenomenon are only partially understood. To explore this, a mediation analysis was done using metabolomic data from a sample of a biracial cohort of 300 children to see if any metabolic pathways mediate the relationship between metal concentration and CVD risk parameters

Christopher Gayvert

Removal of Volatile Organic Compounds from Indoor Air Using House Plants

Volatile organic compounds (VOCs) are among the important indoor air pollutants and using plants is an easy and affordable way to reduce the concentration of these compounds in the air. In the first phase of this project, the efficiency and rate of simultaneous removal of eight VOCs by five common indoor plants have been studied using a small sampling chamber. In the second phase of the project, we are investigating the removal of more than thirty VOCs by a variety of indoor plants with different sizes in a large chamber (33 in x 59 in x 75 in). The concentration of each compound was monitored over 12 hours, using solid-phase microextraction (SPME) coupled to gas chromatography-mass spectrometry (GC-MS) for an empty chamber (as a control run) and in presence of different plants. The carbon dioxide and water levels were also monitored using a LI-840 CO₂/H₂O Gas Analyzer. The results of this project will help people to select the right plants for removing the specific VOCs from the indoor air.

Eldad Sylvestre

Analysis of Diphenhydramine (DPH) in Urine Using Dispersive Liquid-Liquid Microextraction

Diphenhydramine (DPH) is a main ingredient in over-the-counter antihistamine medications. Diphenhydramine is also commonly used in drug-facilitated crimes (DFC) as a "date rape" drug due to its sedative properties. Urinalysis is a useful analysis method in regards to detecting substances which are used in DFC; however, due to the short half-life of diphenhydramine, the metabolites of the drug are also analyzed. Dispersive liquid-liquid microextraction (DLLME) is a popular extraction technique within the forensic toxicology community. In the present research, a DLLME method was developed in order to extract diphenhydramine and one of the drug's metabolites, N-desmethyl diphenhydramine, from aqueous solutions. Aqueous solutions of diphenhydramine and the metabolite were prepared in concentrations of 5 ppb to 2 ppm. The pH of the aqueous solutions was adjusted by adding 50 μ L of NaOH and 20 μ L of phosphate buffer prior to being spiked by 1 mL of a mixture of toluene and acetonitrile (13:40). The solutions were centrifuged for 20 minutes and the top layer was collected, evaporated, reconstituted with 500 μ L of MeOH, and analyzed using GC-FID and GC-MS. With a second set of solutions ranging from 50 ppb to 100 ppm in methanol, a linear calibration graph was constructed, allowing for the concentration of diphenhydramine and the metabolite in the reconstituted solution to be quantified. Using the obtained data, the enrichment factor and extraction recovery were calculated for the drug and the metabolite.

María Elena Mendoza

Analysis of Chemically Modified Silica Gel Using NMR Spectroscopy and SEM

Ligands can be attached to silanols on the surface of silica molecules, but only if enough water is readily available at the silica surface. The amount of water available to coat the silica surface can be varied by changing the relative humidity of the environment the silica is exposed to. A series of chemically modified silica surfaces, prepared using spherical silica particles exposed to a relative humidity of 20%, 40%, and 70%, were analyzed using NMR spectroscopy and scanning electron microscopy (SEM). These samples were all prepared using a mixture of long chain trifunctional (C18) ligands and short chain difunctional (C1) ligands, with the same ratio of long to short chains in the reaction mixture. The relative number of long and short chain ligands along with the crosslinking patterns on the surface, obtained from NMR, were compared. Images of the ligand attachment patterns were observed through SEM and compared with the results from NMR.

Renasha James

Crystallization of the Lectin-Like Domain of Thrombomodulin

Thrombomodulin is an integral membrane protein that has a known role as the cofactor for thrombin. Its epidermal growth factor (EGF) domains play a role in the regulation of blood clotting. Our research is focused on the lectin-like domain that is furthest from the endothelial cell. This domain is thought to interfere with the inflammatory response in a way that is distinct from thrombomodulin's role in blood clotting, but the structure of this lectin-like domain is unknown. The structure of a protein helps predict the function. The purpose of this research is to crystallize the lectin-like domain of thrombomodulin to more fully explore what the function is and how it is implicated in inflammation. As of now, yeast cells are being used to express the lectin-like domain of thrombomodulin. The expressed protein is then purified through ion exchange chromatography, size-exclusion chromatography, and concentrated via centrifugation. After the presence of thrombomodulin in elution fractions from each column is verified by SDS-PAGE and mass spectrometry, the attempt at crystallization can begin. Various crystallization conditions will be tested using both the hanging drop and sitting drop method in hopes of obtaining protein crystals for x-ray diffraction.

Margaret Miller

An Investigation of the Function of Enzyme 3L1W

Protein function is often tied to structure, so structural comparisons for a protein or enzyme of unknown function may help to elucidate its function. An enzyme of unknown function (PDB ID 3L1W) has been studied using various methods to predict and test enzyme function. Using the sequences and structures identified during *in silico* examinations the function could be predicted to a certain degree. Both sequence and structure alignments show that protein 3L1W most likely falls into the endo-phosphatase/ exo-phosphatase family of enzymes. To study this function, 3L1W was expressed in *E. coli* cells and purified via metal-affinity chromatography as well as size exclusion chromatography. Enzyme assays were performed using p-nitrophenyl acetate as a test substrate, and these show that 3L1W is a hydrolase. Assays with other relevant substrates for phosphatases and nucleases are underway to monitor the more specific activity of 3L1W. Additionally, different buffer conditions and reaction times have been used along with tests to determine whether the activity of 3L1W is dependent on magnesium or another metal cation, as many phosphatases are. Our knowledge of enzyme function and analysis of new enzymes can lead to optimization for industrial applications or for development of drugs for disease treatment.

Emily Fingar

Developing In Vitro Crispr-Cas9 System Technique to Target Invader DNA

CRISPR is still a relatively new tool in the science world, and its abilities have only begun to be explored. Cas9 protein was discovered to have nuclease abilities, creating double stranded breaks in target DNA in precise locations. This project's goal is to cut target DNA *in vitro* using Cas9 as an endonuclease and a sgRNA segment unique to the invading species. This research will be used in teaching laboratories aimed to educate students about the abilities of CRISPR and genome editing as a whole.

Piper Goodleaf

Determining the Function of Enzyme 3DL1

Protein function is often tied to structure, so structural comparisons for a protein or enzyme of unknown function can aid in determining function. An enzyme of unknown function (PDB ID 3DL1), derived from *Klebsiella pneumoniae*, was studied using various methods to predict and test enzyme function. Crystal structures of 3DL1 with and without zinc bound show that zinc binds at a site with sequence and structural similarity to known metalloproteases. These crystal structures also show that zinc binding affects the secondary structure of the protein. Computational methods for sequence and structure analysis were used to compare 3DL1 to other protein sequences and structures. These show that 3DL1 may be a hydrolase with possible peptidase activity. 3DL1 was expressed in *E. coli* and purified via metal-affinity chromatography followed by size exclusion chromatography. Enzymatic assays were performed using various relevant chromogenic substrates to monitor the activity of 3DL1 in the presence and absence of zinc. We have determined that 3DL1 shows slow hydrolase activity, with zinc resulting in greater product formation. Tests for specific protease activity are ongoing. An understanding of enzyme function may help with identifying future drug targets or in development of biological catalysts.

Michael Kirsch

Multicomponent Synthesis of 1,4-disubstituted-1,2,3-Triazoles using N-(Phenyl)-N-2-Pyridyl Urea as Ligands

Heterocyclic compounds such as 1,2,3-triazoles have been used in many different fields such as: medicinal chemistry, biological science, and material science. 1,2,3-triazoles can be synthesized using a copper(I) catalyzed alkyl azide cycloaddition reaction, otherwise known as a click reaction. Click reactions produce 1,4-disubstituted 1,2,3-triazoles relatively quickly, with high yield, low byproducts, and can happen under mild conditions. In this research an N-(phenyl)-N-2-pyridyl urea (NPPU) ligand is used to catalyze the click reaction. The NPPU ligand was chosen since it is easy to make using relatively inexpensive ingredients, compatible with copper, and compatible with green solvents.

Dylan DiGrazia, Kimberlynn Sprague

Synthesis and Characterization of a Bimetallic Complex

In order to gain a better understanding of metallophilicity, it is useful to examine a heterobimetallic species. The metallophilic interactions expressed by the metals give way to unique photoemissive properties. Exploring a compound where the metals are held by a mixed phosphinopyridyl ligand will help gain an understanding of how the metal atoms interact. Such a phosphinopyridyl ligand was synthesized using air-free techniques, in a glove box and under a nitrogen atmosphere. While the length of the ligand may vary, an ethylene spacer was used to link the phosphine and pyridine groups. The resulting ligand was used to synthesize a heterobimetallic complex containing Au(I) and Cu(I) ions. The substance can be characterized using a fluorimeter and NMR spectroscopy. This allows for determination of a metallophilic interaction between the metal atoms of the complex. Its photoemissive properties can be explored and its interactions with various solvents, such as acetonitrile, methanol, and benzonitrile can be examined.

Anthony Pompa

Ru(II) Complexes for Aqueous Nitrile Hydration

A variety of complexes will be synthesized as potential catalysts for a commercially relevant organic transformation, the nitrile and cyanohydrin conversion to amides, an important synthetic commercial intermediate chemical. A number of ruthenium complexes have been reported to efficiently catalyze the conversion of nitriles to amides. Our group is focused on designing and synthesizing a small library of Ru(II) complexes containing a variety of water-soluble phosphine ligands. The phosphine ligands will impart water-solubility to the Ru(II) complexes, enabling catalytic application for aqueous nitrile hydration to amides. Synthesis of these ruthenium complexes are carried out using advanced laboratory, air sensitive Schlenk techniques and characterized using instrumentation such as nuclear magnetic resonance (NMR) and infrared (IR) spectroscopy. Future research will focus on comparing the catalytic activity of these various ruthenium-phosphine complexes for nitrile hydration in water under mild reaction conditions. By using water as both a reactant and solvent, the amount of reagents used and waste generated is reduced. Thus, utilization of our novel Ru(II) complexes as catalysts should result in improvements to the overall greenness of nitrile and cyanohydrin hydrations.

Dakota Jackson, Morgan Wolanin

Investigating Photoemissive Properties of Copper Cubanes

Copper cubane clusters are known to have unique optical properties and these unique properties make them suitable for commercial use in organic light-emitting diodes (OLEDs). The benefit of using copper compounds is they are cheaper than the Iridium compounds classically used in OLEDs. Subtle changes in the chemical composition of these clusters, such as substituting the bridging ligand, leads to great emission shifts. These emission shifts can be attributed to changes in the coordination environment of the copper ions. Copper (I) pseudohalides such as thiocyanate and cyanide are underexplored and may display interesting luminescent properties. The synthesis and characterization of these copper pseudohalide cubanes are analogous to previously reported studies. The optical properties of these compounds were analyzed using fluorimetry followed by crystallization of the photoemissive product. Characterization of the photoemissive species will provide insight into the origin of the photophysical properties.

Eva Doty, Malik Jones

Current Issues in Media Law

The top paper from three sections of Mass Media & the Law. The issues discussed are free speech on college campuses, net neutrality and loot boxes in gaming.

Jacob Lewis, Seamus Raia, Jada Sterling

Challenge Debate with SUNY Brockport

This is a parliamentary debate against SUNY Brockport over the topic "This house believes that colleges and universities have a moral obligation to prohibit public expression of hate speech on their campuses."

Sarah Gray, Brandon DeFrancesco, Alexandra Borowsky, David Hite, and four debaters from SUNY Brockport

Gender and Race in the Media

This panel will discuss the complex representations of race and gender in contemporary media. Each panelist will examine how media texts challenge but also reinforce traditional stereotypes of race and gender in platforms such as film, TV series, and video games.

William Corsi, Kyle Meade, Morgan Scott, [Julia Tilley](#)

Showcasing Student-Designed Communication Research Projects

Students will share their findings from research papers in COM 403 (Research Methods) and COM 499 (Independent Study).

Sabrina Ventrano and Kayla Bonasera will present "[Normalization of Addictive Coping Methods for Stress with College Students](#)" (COM 403 Paper coauthor: Schuyler Oakes). Kiana Anderson will present "[The Impact of Social Stratification on](#)

[People's Perception and Identities](#)" (COM 403 Paper coauthors: Titan Butikima and Tyquan Bethea). Taylor Rechichi will present

["Exploring Gender Performance and Identity in the Pokémon Twitter community."](#)

Sabrina Ventrano, Kayla Bonasera, Kiana Anderson, Taylor Rechichi

Strategic Communication Research

Graduate students will present their ongoing research projects in strategic communication. The topics include social media post effectiveness, mental health communication among Black college students, queer identity in online dating profiles, effectiveness of online dating pick-up lines, effectiveness of persuasive messages on diets, and college students' views on marriage.

Kerisha Lewis, Delani Morgan, Nicholas Chilson, Robert Robbins, Breck Donohue, Margaret Queen

The Impact of Smart Phones on Teenagers

This presentation focuses on the impact of smart phones, especially social media systems, on teenagers. It will explore the social, economic and cultural factors behind the addiction of teenagers to mobile phones, using empirical methods to investigate the psychological reasons for teenagers' addiction to mobile phones. Finally, policy suggestions are given to improve the media literacy of teenagers.

Jiu Wen

► COMPUTER SCIENCE

FindingFive Story Store - Development and Implementation

Continuing the excitement of Computer Science, Software Engineering, and Human-Computer Interaction advances are to be experienced in this glorious session.

CSC480/HCI521 Presenters

TRANSition - A Prize Winning Hackathon Project to Create a Wholesome Environment for People to Gain a Deeper Understanding of Their Gender Identities and Sexual Orientation

In this session, various computer science students and faculty will present their research results which are anticipated to push the envelope into the 21st century.

Bharati Mahajan, Anisha KC, Tonia Sanzo, Alexis Indick

A Collaborative Robot Coordination System based on XBee

Yehua Zhang, Nathan Gillette, Shaun Godfrey

Remote Presentation

Jolanda Tromp

Video Game Challenge

Alex Pantaleev

► CREATIVE WRITING PROGRAM

52nd Annual Charles F. and Miriam B. Davis Creative Writing Awards

Creative Writing Faculty

Elemental Monologues: Earth

Monologues written and presented by advanced playwriting students.

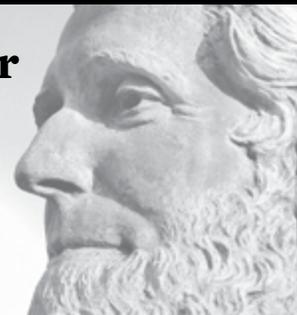
Samantha Austin, Michaela Buckley, Jayden Cruz, Christopher Eastman, Edward Pisacane, Shannon Soccocio, Stephanie Timpe

SUNY OSWEGO | DIVISION OF GRADUATE STUDIES

Offering graduate pathways for every undergraduate major

▪ SCHOLARSHIPS AND ASSISTANTSHIPS AVAILABLE ▪

oswego.edu/gradstudies



Seeing Through Their Eyes

In this talk, presenters will describe a collaborative conversation each engaged in as a part of a Personal Profile assignment for a preservice teacher education course. The purpose of the assignment is to learn more about the educational impact and day-to-day experiences of people identified as having a disability. Selected visual representations of the lived experiences of the interviewees will be on display.

Professor Deborah Howard

Instructional Media and Technology: Presentations by Five Visiting Scholars

1) Title: Influence of Digital Equipment on Interaction Quality in Technology-Rich Classroom: Interactions in technology-rich classroom have a higher level of complexity in comparison with traditional classrooms. This presentation will discuss the following questions and related findings: Is there any change on interaction due to digital equipment in technology-rich classroom? Is new digital equipment more effective than traditional equipment? How does digital equipment influence the interaction quality in technology-rich classroom?

2) Title: Research on Regeneration of Online Educational Information Resources Based on Web2.0: Web2.0 provides the user with feedback, which contributed to the development of user-generated content. This presentation will focus on the development and utilization of user-generated content through Web 2.0 technology. It will discuss the regeneration and its mechanism of online resources, the utilization of regenerated resources, and the factors that affect the regeneration and utilization of information resources.

3) Title: Research on the Effectiveness of Instructional Videos for Skill Operation: Instructional videos for skill operation help learners acquire certain skills through learning process such as exercise and demonstration. The presentation will analyze the characteristics and design requirements of instructional videos for skill operation, and discusses its learning mechanism.

4) Title: The Rise and Change of Active Learning Classrooms: Active learning classroom (ALC) became popular from the middle of 1990's in the United States. Recently, the smart classroom has been quickly developed and implemented in China. In order to better understand the ALC and the smart classroom, this presentation will draw out and discuss the timeline of ALC and smart classroom development.

5) Title: The Key Factors of Influence on the Continued Use of Flipped Classroom Instruction: From Chinese Instructors' Perspective: The flipped classroom has gained much attention for its pedagogical success in higher education. However, continued use of this technology-supported instructional approach has been problematic. To support the success and continuation of flipped classroom implementation, this study employs structural equation modeling techniques to examine the relationships between key factors of influence and instructors' continued use intention.

Sponsor: Dr. Harrison Yang

Presenters: Dr. Xiaochen Wang, Visiting Scholar and Associate Professor at Capital Normal University, China; Dr. Xiangyang He, Visiting Scholar and Professor at Hunan First Normal University, China; Dr. Shunbi Wu, Visiting Scholar and Associate Professor at Guizhou Minzu University, China; Dr. He Yang, Visiting Scholar and Associate Professor at Hubei University of Education, China; Dr. Jin Cai, Visiting Scholar and Associate Professor at Hubei University of Education, China

Educational Spaces in International Places: Reflections from the London and Benin Programs

EDU 382 (London) and EDU 305 (Benin) were Fall 2019 Q2 courses that traveled internationally during January 2020. Through lenses of culturally relevant theory and postcolonial theory, faculty leaders facilitated an examination of the educational systems in these international places. This presentation will highlight reflections from students and faculty with comparisons of the systems. Faculty will present course goals and objectives, including course materials and resources and travel/programming decisions. Undergraduate students will highlight their reflections and interpretations of the theories in practice.

Dr. Marcia Burrell, Dr. Kenneth Marshall, Dr. Ritu Radhakrishnan

► CURRICULUM AND INSTRUCTION

Benin: Perceptions and Realities

SUNY Oswego's International Education office-sponsored nine students and two faculty members to go to Benin west Africa, Winter 2020. This Education and Global Studies course is the seventh iteration of the Benin program since 2008. In the past, final student projects included a 3 to 5-page paper with references from readings completed in the fall before the winter travel session. The digital projects represent thoughts, experiences, and perceptions based on 19-day travel experience in Benin West Africa. The videos, photographs, and words represent, learning about the voodoo religion, cultural visits, homestays, and school visits. These digital products come from students in the School of Business, the Colleges of Liberal Arts and Sciences, and the School of Education, and display their personalities, thoughts, and perceptions about their travel.

Dr. Marcia Burrell, Dr. Kenneth Marshall

Struggles in Education for All

Students in this class are collaboratively researching issues in education relevant to the right to know. Five presentations will entertain outlines of the history of sex education and kindergarten, issues in African-American and Native-American education, and controversies about the impact of media and technology on education.

Dr. Tania Ramalho

► EDUCATIONAL LEADERSHIP

Optimal School Scheduling for Student Learning

What is the optimal length of time for middle school and high school students to be in class to maximize their learning? This was the focal question this team of educational leadership candidates sought to answer as they conducted a comprehensive study at the behest of Mexico Central School District's Superintendent. An extensive review of historical data, dating back to the mid-1990s, helped define the rationale for this study.

Specifically: Despite the fact that many staff members believe the current modified block schedule is working well, many other factors indicate these perceptions are not accurate. Second, the district has not been successful in achieving a 95% pass rate for any of the Regents exams. And third, the rate of absenteeism among high school students remains high, which defines another reason to modify course scheduling.

The team also conducted surveys among teachers, parents and students, which ultimately informed several of the recommendations they developed for the Superintendent and his leadership team in the Mexico Central School District.

Lis Benavides, Tammy Cummings, Kim Rice, Sarah Wolff

► ELECTRICAL AND COMPUTER ENGINEERING

Three Joint Robotic Arm

This Project is a Robotic arm with three joints allowing it to move in three-dimensional space to any point given to it. The purpose of this arm is to show what robots are capable of specifically relating to automating a process as well as trying to mimic a human arm both how it moves and how it interacts with objects. The arm will have endless possibilities once it is built as adding or removing certain code will allow it to complete different tasks. In our presentation we will discuss the research that was done when coming up with a design for the arm, how 3d printing has changed our project, what obstacles we are facing in building the arm and finally what the final product will look like and how it will perform.

Steven Hust, Rudolph Petter, James Guidi

High-Voltage Power Supply for Ionic Wind-Driven Systems

The goal of this project is to design and implement a more efficient high-voltage power supply to be used to assist in ionic-wind driven systems. The high-voltage power supply should simulate a similar functionality of the currently used Glassman high-voltage power supply in order to complement Dr. Adrian Ieta's ionic wind research. The battery-powered design will be used to move an ionic actuator with better mobility. Therefore, the system created must be lightweight and affordable.

Lauren Wensley, Binura Silva, Blake Farnham

TagBots: Exploring Role Changing and Team Member Identification in a Polymorphic Multi-Robot System

Two identical robots, equipped with various sensors, including a LiDAR, will run around the room. The first robot will move away from the starting point, stopping when it reaches the boundary of the play area. The second one, the It robot, will search for the first and attempt to “catch” it by bumping it.

The two robots will switch roles once bumped into each other. A Bluetooth handshake will occur to ensure that it was the It-bot that bumped the other bot, and not something else. This will cause a brief pause to allow the new running bot a chance to run away before the new It-bot will begin to chase it.

Jessica MacKay, Tyrone Clarke

Automated Home Security

Home security systems are becoming a staple for homeowners in America. The expansion of the embedded systems market over the past few decades has made microprocessors and embedded RF communication commonplace in today's society. Most cell phones today contain several of these devices with WiFi, Bluetooth, GSM, and even satellite navigation right in your pocket. In the home, many people are using “Smart Home” devices such as voice assistants, automated thermostats and light switches. As these devices have gained a significant amount of popularity in recent years, “Smart” home security is also a rapidly growing trend.

There are a plethora of viral videos out there showing footage of criminal activity occurring right outside someone's home, without their home security system they may have never been alerted to any potential danger. In a study released in 2010 by the U.S. Department of Justice, Bureau of Justice Statistics, an estimated 3.7 million burglaries occurred annually over preceding years. About 12% of homes burglarized while the occupant was present resulted in the homeowner facing an offender armed with a firearm.

A security system of any complexity is a good step in the pursuit of ensuring that you and your loved ones are protected home. The autonomous nature of our system has the added advantage of operating in a stand-alone fashion, sparing the homeowner the trouble of setting an alarm or monitoring the sensors themselves. Most modern security systems have sensors that can detect carbon monoxide and motion or glassbreak, and record and send live video for the user to view remotely. This provides a safer living environment for the occupants when they're home or away, as well as peace of mind. Major security companies often require a service or subscription that a user pays periodically, as well as relatively complicated installation.

An inexpensive and easy to use home security system would let the user take control of their own home security. Making erst-while wired sensors operate over a wireless channel would allow for the greatest ease of use for a typical consumer. Using XBee RF modules and a Raspberry Pi, one can create their own automated home security system with the aforementioned functionalities. The XBee modules are used as communication devices that report sensor data back to a main unit, housing a system that processes the data and responds accordingly. The Raspberry Pi will serve as the main control unit to coordinate the signals coming from each sensor module, as well as transmit or store video depending on user configuration. The goal of this project is to create an automated home security system that is inexpensive yet delivers the user a range of key capabilities to help protect their home and loved ones from preventable harm.

Ashish Kharka, Jonathan Castillo, Nathan Loucks

Smart Gym

Gyms are part of many people's everyday life. People spend multiple hours a day at the gym to increase their general health, this energy spent by each person could have more use than just health. A Smart Gym would turn the energy created by a person's regular work out into reusable energy to power appliances. This power could go back to the power grid of the gym and reduce the energy bill of the gym. Having a user interface with this technology could create an environment where people can achieve energy goals as well as health goals and in turn lower the price the gym/household must spend on electricity, which can lead to lower monthly payments for consumers. This technology can reduce carbon emissions and reduce energy usage for not only full-scale gyms but homes as well.

Allen Nguyen, Joseph DiGerolamo, Ethan Van Blommestein, Francis Venne

► ELECTRICAL AND COMPUTER ENGINEERING

Smart Lot: Smart Parking with Image Classification

Finding parking can be difficult, frustrating, and at times, uncertain. The current parking system relies on drivers seeking an available parking space. While this may not be a problem in sparsely filled parking lots, in lots near capacity drivers could easily waste time looking for a spot. The aim of this project is to alleviate the hassles associated with searching for an available space. To accomplish this a Convolution Neural Network (CNN) is used to determine availability via image classification. The data will be collected by a sensor network and stored locally on a central server and used to populate a digital model. Users will have access to population data through an interactive GUI, with the ability to reserve parking spaces within a timeframe. Smart Lot aims to streamline the parking process and create an efficient, hassle-free parking environment with room for expandability.

Alec Suits, Sam Shebert, Tim Walrath

► HEALTH PROMOTION AND WELLNESS

Prevalence of Food Insecurity Among College Students at a Mid-Atlantic University

For many college students, today, food insecurity is just a few missed paychecks away. The purpose of this mixed-method research study was to identify the prevalence of food insecurity and the possible predictors among college students at a Mid-Atlantic University.

Courtney Sayre, Anne Seichepin, Shane' Weir, Rita Ntim-Gyakari, Emily Schaffer

Discover Wellness

Researchers will briefly take you through the five stages of health programming, showcasing their transferable skills: needs assessment, data analysis, program planning, program implementation, and program evaluation. A strong emphasis will be placed on the individual health sessions and their importance to the target population.

Shannon Stone, Richard McCabe, Christopher Maddaloni, Taylor Davis

► HISTORY

Senior Seminar in History

Students in the History Department's senior seminars will present brief overviews of their current seminar projects.

Ishara Aryal, Olivia Bottari, Matthew Crary, Alexander Gault-Plate, Emily Wagner

History: Faculty Papers on China

This session will focus on the scholarly work of two visiting scholars from China.

Dr. Li Fang, Dr. Xidao Deng

South Asian Sacred Spaces

Students of the History class, South Asian Sacred Spaces, will present their individual research on Indian pilgrimage networks using Digital Humanities tools, such as an interactive media app and interactive maps.

Students from HIS 336

► HONORS

What it Means to be a Refugee in Central New York

Honor (HON 301) students and a "teacher" from the refugee community will share their scholarship about refugee resettlement in Syracuse, New York. They will also discuss the role of empowering youth and adults through culturally appropriate literacy and learning activities. The panel will discuss how this 20-hour service-learning course during fall 2019 has impacted their scholarship, future career trajectories, and passion for making a difference. This interactive panel is open to anyone who has an interest in learning from and collaborating with the local refugee communities of Central New York.

[Kate Gordon \(Computer Science and Cognitive Science\)](#), Rachel Janish (Language and International Trade), Hamdi Farah (English), Dr. Sandy Bargainnier (Health Promotion and Wellness)

► HUMAN DEVELOPMENT

Human Development Capstone Experience

The HDV students will present information about their internship placements and program proposal ideas based on their internship sites.

Jason Powers, Mercedes Hunt, Lauren Guilds, Laura Piekunka

► LINGUISTICS PROGRAM

Working on the Kiowa Dictionary Project

This session will consist of three presentations and a panel Q&A period. The first presentation provides an overview of the Kiowa Dictionary Project, a multi-site collaborative initiative to create a comprehensive dictionary for the Kiowa language spoken in southwestern Oklahoma. The second presentation outlines the information included in each entry, discussing the motivations for each piece of information in terms of language learning, documentation, and linguistic analysis. The third presentation will focus on the fact that the dictionary includes four different writing systems, providing brief histories of each, and comparing each of them. The Q&A session will cover all three presentations and the project as a whole.

Autumn Schunk, Lillian Talmage, Gabriel Warner, Ian White

► MATHEMATICS

Covers & Perfect Hash Functions

Graphs and hypergraphs play a prominent role in many areas of computer science. In this talk we will discuss a certain graph theoretic optimization problem regarding covering the complete k -uniform hypergraph, wherein the solution to this problem would simultaneously solve an equivalent problem regarding perfect hash functions, important objects in computer science.

Nicolas Van Kempen

Free Resolutions and Combinatorial Objects

We investigate the relationship between Combinatorics, Algebra, and Topology by studying simplicial complexes. In this, we can see the transfer of critical information via computing chain complexes and the homology of our given complex. We will learn exactly what qualities are necessary for our complex to have, in order for the chain complex produced to have desired properties.

Juliann Geraci

► MODERN LANGUAGES AND LITERATURES

Modern Languages Honor Societies Induction Ceremonies

• French • Spanish • Italian

Susan Bertonneau, Zoraida Lopez and Patrick Schultz

Studying Abroad: GETGO Travel Grant Experiences Part I

MLL Students who have received a GETGO travel grant, will be discussing their experiences of studying abroad.

To be determined

Studying Abroad: GETGO Travel Grant Experiences Part II

MLL Students who have received a GETGO travel grant, will be discussing their experiences of studying abroad.

To be determined

► OFFICE OF INTERNATIONAL EDUCATION AND PROGRAMS

Get Uncomfortable: How to Overcome Fear and Culture Shock Abroad

When traveling abroad, students must face certain fears and battle culture shock. Study abroad students Awa and Fadi will share their experiences while studying abroad in France, Benin, and the Czech Republic. They discuss the methods and tools they used to make meaning of the tough parts of their experiences overseas and after returning back to the US. Each presenter will share excerpts of their vlogs, journals, interviews, and more. Not only did they conquer their fears but they also learned things about their own identities that they had never appreciated before. Through this session, participants will learn how they too can discover the tools needed for successfully facing their fears abroad and battling culture shock.

Awa Dembele, Fadi Gaye

► PHILOSOPHY

What are Theoretical Entities?

Do the entities referred to in theories exist? For example, when we talk of beliefs and desires and other mental states, do these really exist or are they just a useful way of talking about people? Or when physicists talk of quarks or strings, do these things exist or are they just useful proposals? This session will grapple with these questions of realism versus anti-realism.

[Emma Hulsing](#) and [Dylan Smith](#)

► PHYSICS

Transition Metal Doped Quantum Dots for Photovoltaic Applications

In recent years, semiconductor zinc sulfide (ZnS) quantum dots have been considerably studied for various applications such as light emitting diodes, flat panel display, UV sensor and solar cell application. We discuss herein the optical and transport properties of the transition metal doped quantum dots and optimize them for better photovoltaics. Zinc sulfide has an excellent optical and electronic performances due to its wide band gap. In addition, cobalt-nickel doped zinc sulfide brings a versatility of the band gap energy. This is corresponding to an enhancement in the photo-to-current efficiency of doped quantum dots in sensitized solar cell. In this study, we explore how the different dopants lead changes in the band gap and discuss the characteristic of these doped quantum dots. The absorption data shows that cobalt-nickel doped ZnS has the highest absorbance the visible range out of all the single and co-doped and tri-doped quantum dots which made it the best candidate for optoelectronic device fabrication.

[Trieu Le](#)

The Hydrogen Ionization Front and Stellar Photosphere Interaction in Radially Pulsating Variable Stars

The Hydrogen-Ionization-Front (HIF) is a rapidly changing region of the outer stellar envelope where hydrogen is ionizing. The Stellar photosphere (optical depth $2/3$) is where the bulk of the observed radiation from these stars originates from. Here we show how the HIF-Stellar photosphere interaction can explain the observed character of Period-Color relations in 4 types of variable stars (Cepheids, RR Lyraes, BL Hers and W Virs). We discuss the implications of our results.

[Brett Meerdink](#)

Fabry-Perot Interferometer in Laser Spectroscopy Applications

External-cavity diode lasers (ECDL) are widely used in spectroscopy applications. These applications typically require precise and smooth single-mode wavelength scanning of the laser for a period of time. In ECDL, wavelength scanning is achieved by changing the grating angle via piezoelectric transducer. However, due to the hysteretic behavior of piezoelectric devices the scanning wavelength is not proportional to the applied linear voltage and results in a changing wavelength that is non-linear in nature. Here, we present a procedure to linearize such a wavelength scan using a Fabry-Perot interferometer.

[Logan Sperano](#)

► PHYSICS

Measuring the Hyperfine Splittings of Rubidium $5P_{3/2}$ Excited State Using Saturated Absorption Spectroscopy

One of the laser-based spectroscopy techniques, the Saturated Absorption Spectroscopy (SAS) was performed to measure the hyperfine energy splittings of rubidium $5P_{3/2}$ excited state. Two low-power beams at 780.24 nm produced by an external-cavity diode laser (ECDL) were sent through a vapor cell containing 85Rb and 87Rb . Another strong (high-power) beam from the same laser crosses one of the two beams in the opposite direction through the vapor cell. With atoms absorbing more energy from this strong beam, the low-power beam then shows less absorption while the laser is scanning through the $5S_{1/2}$ (Ground) \rightarrow $5P_{3/2}$ atomic transition. By directing the two low-power beams transmitted through the vapor cell at a differential photodiode, an atomic spectrum corresponding to the hyperfine transitions was obtained. Analysis of these spectra collected under various conditions resulted in a precise measurement of hyperfine splittings as well as the isotope shift of rubidium $5P_{3/2}$ state.

Elina Van Kampen, Trieu Le

Investigating the Nature of the Hydrogen Ionization Front in Classical Cepheids

Classical Cepheids are radially pulsating stars which are crucial for the non-Cosmic-Microwave Background distance scale and for constraining theories of stellar pulsation and evolution. Adams and Castor (1979) computed a non-linear full amplitude 10-day pulsation model of a classical Cepheid and showed that the hydrogen ionization front briefly changed from a D type to an R type at a particular phase of the expansion. Here we analyze a series of classical Cepheid models made with a modern pulsation code (MESA/RSP) and investigate if such a transitory type ionization front exists. We discuss the implications of our results.

Anthony Chalmers

Magnetic Levitation

In the past ten years, magnets and the magnetic fields they create have been part of a major boost in modern technology. Maglev trains and Eddy braking are two examples of the many applications that use changing magnetic fields to create magnetic levitation or magnetic braking. Companies like Hendo have produced hoverboards using strong neodymium magnets, utilizing their strong magnetic fields. These magnets are configured in a Halbach array which creates an amplified field on one side of the array and a diminished field on the opposite side. When this array is positioned in a circular pattern and spun, the changing magnetic field produces a lift force that can carry as much as 192 kg. Although the construction and application of this array has already been completed, there is currently no theory relating all of the variables part of this hovering machine. Using empirical data, a relationship between all of these variables can be found and then derived from Faraday's law of induction

Matthew Sodano, Jared Bouldin

► POLITICAL SCIENCE

Can't We All Get Along? Finding Common Ground in a Polarized World

This session features a debate between representatives of the College Dems, College Republicans, International Socialist Organization and Young Americans for Freedom. The goal of this event will be to hear different points of view on certain current events in a civilized manner. The point of this panel will show that we can have discussions about the issues important to us in a productive and beneficial way.

Mark Harris, Nicole Evans, Alexander Ehrenberg, Jenn Robilotto, Wyatt Fulton, Tyler Toomey

Mental Imagery and Aphantasia

The purpose of this research study was to examine a newly coined condition, aphantasia. Congenital aphantasia is a condition in which an individual is born with an absence of mental imagery. To classify subjects as aphantasic or non-aphantasic, each subject completed the Vividness of Visual Imagery Questionnaire (VVIQ) (Marks, 1973). All subjects completed two tasks designed to evaluate mental imagery using Mousetracker (Freeman & Ambady, 2010). The tasks included Kosslyn's (1978) mental map scanning task and Shepard and Metzler's (1971) mental rotation task. In a mental rotation task participants mentally rotate pairs of presented stimuli and decide if they are identical to one another or if they are mirror images. In the mental scanning task participants memorize a map of a made up island, then mentally travel between locations on the map. We predicted that we would see no difference in basic response times for subjects with aphantasia when compared to controls. However, the mouse trajectories would allow for more insight into the decision making process by revealing subtle differences.

Mariah Johst, Theo Rhodes

Mediating Effects of Attachment Style on Traumatic Experience and Psychopathological Symptomatology

The Stress Buffering Model posits that the effects of social support is predictor of better psychiatric outcomes as this support provides an environment in which an individual feels they can more readily cope with their stressors. Attachment style looks at how people form and maintain relationships stemming from early childhood experiences and is used in this study to see how it impacts perceptions of support in individuals who have gone through a traumatic experience and subsequently the processes that each attachment style has been shown to relate to particular coping styles that factor into their rate of recovery. Traumatic experiences will be grouped based on assaultive vs not as it has been shown in previous research that assaultive type traumas result in worse overall outcomes and in some cases feelings of distrust which is predicted to impact perceptions of support. This project will use self-report measures to assess these variables in the general student population and will be analyzed using mediation and moderation models.

Dakota Trejo, Samara Rice

Resource Constraints on Embodied Human Foraging Behavior

We measured foraging patterns of human participants using easter eggs as simulated resources. We placed 100 easter eggs around an outdoor quad. The task was to locate as many easter eggs as possible within a set timeframe. Participants wore a head camera to track their movement while collecting eggs. Participants either searched for eggs placed in a clustered distribution or a uniform distribution. Based on prior research on human hunter-gatherers (Brown et al., 2006), we hypothesized that human foraging would exhibit Lévy-like dynamics, where short movements in random directions are connected by much rarer, but much larger movements. Lévy-like behavior has been identified in a range of foraging behaviors, and may increase search effectiveness under certain circumstances (Viswanathan et al., 2001). Both the effectiveness and dynamics of search behaviors may be altered by differences in resource distributions, values, and other embodied constraints. This research was designed to further knowledge on human search behavior in the real world, and to determine if search patterns change when the distribution of resources change. This experiment is an exploration of foraging behavior in a naturalistic, but controlled environment, allowing examination of the effects of different levels of constraints on search behavior, such as ecological, embodied, and task constraints.

Rachel Simizon, Giovanni Anastasio, Joshua Hull, Ben Wilson, Theo Rhodes

Have a passion for research?

SUNY Oswego's Scholarly and Creative Activities Committee can help you fund it!

SCAC grants supported 14 faculty-student collaborative projects with over \$50,000 this past summer alone. We fund work from all disciplines—arts and sciences alike.

Some recent examples include: "Writing the Sea: A Digital Archive of Morgan Robertson," "Retinoic Acid Signaling; Or, Skeletal Structures in Reptile Eyes," and "Studying the Light Curves of Stars with NASA's Kepler Satellite"

Find out more at: <https://www.oswego.edu/orsp/internal-grants-and-recognition-awards>

Early Adverse Childhood Experiences and Big Five Personality Traits as Mediators of Emergent Psychopathological Symptomology

Psychopathology, as explained by personality, has in recent years had an upsurge in research. The current study adds to the base of research by investigating if the BIG Five personality traits and childhood abuse play a mediating role between personality traits such as impulsivity and psychopathological symptomology in a non-clinical sample. It is hypothesized in the current study that: (1) high neuroticism is an indicator of depressive symptoms, and the presence of childhood abuse will predict severity. (2) Narcissistic personality disorder (NPD) will be correlated to neuroticism and have some influence on emerging psychopathology due to child abuse. (3) Openness to experience is hypothesized to predict cannabis use disorder and, when paired with childhood abuse, either bipolar I or II. (4) Conscientiousness is hypothesized to predict depression. (5) Extraversion is predicted to be correlated with alcohol use disorder. (6) Borderline is predicted to be a result of equal parts neuroticism and extraversion. (7) All secondary predictors of psychopathology have no prior and are included merely for exploratory purposes. Secondary predictors include impulsivity, emotional intelligence, executive function, consideration of future consequences, and familial relationship quality. Participants will be college students from SUNY Oswego, general public recruited online through social media, and the general public of Oswego Town. Participants will answer multiple questionnaires to assess where they fall in the spectrum of personality and psychopathological symptomology. Data analysis will consist of multiple regressions on primary predictors and a mediation analysis using Preacher and Hayes' (2004) bootstrap method on all secondary predictors.

Adira Brown-DeVirgilio, Samara Rice

Sex Differences in the Association of Threat Bias and the Amygdala

This study investigated the sex differences of the association between threat bias and the resting state functional connectivity (rs-FC) of the amygdala using public data from the Nathan Kline Institute-Rockland Sample. Seventy healthy controls (female = 41) performed a dot probe task that consisted of two faces (either threatening or neutral) where one face would be replaced by a dot eliciting a corresponding response. In addition, subjects underwent a five-minute resting state functional Magnetic Resonance Imaging (fMRI) where whole brain rs-FC was calculated with the amygdala being the seed region. The results showed that males and females are not significantly different in the amygdala's whole brain rs-FC but are different in the correlations between threat bias and amygdala's rs-FC. In particular, females exhibited significant, positive correlations between threat bias and the amygdala-thalamus and amygdala-insula rs-FCs, and negative correlations between threat bias and the amygdala-caudate rs-FC, amygdala-subgenual anterior cingulate cortex (sgACC) rs-FC, and amygdala-inferior frontal cortex (IFC) rs-FC, respectively. On the contrary, males did not show any significant correlations between threat bias and amygdala's rs-FC. These results echoed previous research highlighting the roles of amygdala-thalamus rsFC in higher sensitivity to threat, and amygdala-insula rsFC in increased emotional regulation, as well as amygdala-limbic system rsFC to decreased stress in females.

Samantha Jenks, Sien Hu

Utility of Eye Tracking in the Investigation of How Children Resolve Linguistic Ambiguities in the Presence of Classroom Background Noise

Speech perception is a critical foundation for language use where the sounds of language are heard, interpreted and understood are investigated (Holt & Lotto, 2010). The important role of spoken and written communication in school-aged children's lives suggests that individual differences in these skills entail benefits and risks.

The present speech perception experiment of nine to 11-year-olds assesses listening comprehension under two primary conditions. One condition contains syntactic ambiguities where a sentence has the ability to be interpreted in multiple ways due to the sentence structure having an ambiguous nature. The second condition contains multiple meaning ambiguities where the presence of a word in a sentence that has the possibility to refer to different things based on the context leaving the meaning of the word unclear until more information is provided. Also studied is the effect of classroom background noise on the resolution of ambiguities. Schafer et al. (2013) found that a background signal-to-noise ratio of -5 dB significantly affects a child's listening comprehension; we predict that even less noise will be disruptive for syntactically ambiguous stimuli.

A Pupil Labs eye tracker is being used to measure children's fixations on cartoon scenes that correspond to the ambiguous sentences given. In order to examine how children are dealing with ambiguities patterns of gazes on cartoons scenes are investigated. The number of fixations duration of fixations. In addition to examining children's fixations children's verbal responses are recorded to assess each child's process of interpreting the ambiguities. Themes in children's responses will be analyzed as qualitative data to identify any patterns of how children are resolving ambiguities. Also, a language processing skills assessment (TAPS-4) was given. To-date a total of 25 children have participated in the study and of those there are datasets from 13 children that are ready to analyzed. Data reduction and analysis is underway. Results have implications for deeper understanding of the development of auditory-visual processing of ambiguities in speech that can help children with comprehension challenges get support needed to be successful in academia.

Gabriella DeAngelo, Alex Rivera, Leigh Bacher

► PSYCHOLOGY

Redeveloping and Piloting of a Children's Social Skills Program

Social skills development programs, with a focus on both emotional awareness and effective communication skills, are being conducted in our communities nationwide. While the primary focus has been on deciding which social skills should be targeted by these programs, there is a need for more research into which method of delivering this information fosters the most productive environment for obtaining and retaining this information. Current programs use a variety of methods from video segments to conversation-based strategies in order to teach kindergarten aged children a variety of skills from cooperation and kindness to verbal and nonverbal cues. The present study focuses on the redevelopment of the adapted scripts from the Social-Emotional Adjustment and Resilience program (SOAR) from a primarily conversationbased method to an activity focused style of teaching. Two classrooms of children ages 3 to 5 and focus of future social skills programs.

Rebecca Sawler

Internet Addiction: Gaming, Social Media, and role of Personality

As high-speed connections increase in their availability and accessibility, the public interest in Internet Addiction is rising. Internet Addiction is a categorical term containing a variety of Impulse Control Disorders (ICD) on the internet. These subcategories include: gaming, social media, pornography, gambling, and shopping (as defined by addiction questionnaire criteria). Just as gambling addiction was not legitimized recognized by the American Psychiatric Association until 1994; the DSM-5 has only recently included Internet Gaming Disorder (IGD) in 2013 (American Psychiatric Association, 2013; Rennert, et al., 2014). IGD appears to have worse prognostic indicators than the other sub-categories of IAD. Significant attention has been given to the phenomenon of social media; as social network participation reaches record global highs and rising. Researchers have been investigating the compulsive use of social media; Social Media Addiction (SMA). Internet gaming and social media use seem to be the two most popular activities on the internet with adolescents and young adults. The purpose of this study is to assess personality and situational differences between the two conditions, testing the Quality of Real Life Hypothesis (virtual escapism predicted by objective and subjective well-being), and comorbidity prevalence without diagnostic information. [Project Ongoing]

Researchers hypothesize: (1) that neuroticism will be positively correlated with IAD, IGD, and SMA, (2) conscientiousness will be negatively correlated to IAT, IGD, and SMA, (3) extraversion, agreeableness, and openness will be significantly different between IGD and SMA group (4) agreeableness will be associated with SMA, and extraversion will be associated with IGD.

John Gillies, Samara Rice

► SCHOOL OF BUSINESS

Internal Carbon Pricing at SUNY Oswego

Global warming continues to reach an all-time high, it is vital that the college community works to combat this problem. When it comes to reducing our carbon footprint as a campus there is no single solution. The Internal Carbon Pricing Model at SUNY Oswego gives plans that can and should be considered in order to reduce the carbon footprint of the campus community. We will provide a handful of models that we feel will make the biggest impact and are the best fit for our campus.

Spencer Johnson, Omar Van Reenen, Linden Merrill

Chinese Shadow Banking Operation Mechanism and Risk Transmission

Huiyi Zhang

Impression Formation: Interactive Effects of Attire and Gender on Perceptions of Ethical Behavior

Eyal Shamban, Tianna Moxley

Warren Buffett's Stock Picking Methodology

Daniela Aquino, Anthony Pasquarella

Valuation of Graham Manufacturing's Equity

Daniel Bergin, Tyler Hughes, Noah Jones, Brayan Reyes, Andrew Saunders

► **SCHOOL OF EDUCATION:
TEACHER OPPORTUNITY CORPS II (SOE FIELD PLACEMENT OFFICE)**

Voices from TOC II Scholars: Why Representation Matters, the “Cultureless” Students

The School of Education TOC II Scholars believes that representation, identity, and culture matter and that school should be welcoming and safe for everyone. However, many students, especially those of color feel as if they need to assimilate or strip away their identity and culture to have a place in the education system. As future educators, it is sometimes hard yet necessary to check our biases before our students enter our classroom. During this interactive presentation, TOC II Scholars will explore/address implicit bias, individual identities/culture, and why it is truly important to have educators of color in the field. Through personal stories and research, this presentation will also present strategies for non-teachers of color to promote a safe learning space for all students especially the ones who feel as though the education system was not set up for their success. We will work collaboratively to identify ways we can leave our biases and privileges at the door to allow for all identities and cultures to be welcomed and respected in our classes, in our school, and in our community. Facilitators: Tamara Dalton and Anabelle Maldonado

Teacher Opportunity Corps (TOC II) Scholars

► **TECHNOLOGY**

The Art of Mechatronics and Manufacturing Technology: A Demonstration

This 20-minute presentation/demonstration will give an overview of how CNC routers, laser cutters, and 3D printers are being used technically and artistically to support Team Mini’s efforts to continually entertain and engage fans. The process from initial programming to finishing pieces will be shown. We will be unveiling our latest project, a fully functioning battery-powered audio animatronic figure operated by VEX components.

Nathaniel Canfield, Josh Arnold

► **THEATRE**

‘Acting Shakespeare’ Selections

Acting Shakespeare students will present selections from Shakespeare’s notable plays.

Bayana Burnell, Megan Campbell, Lawrence Defay-Altener, Kayla Elfers, Tyler Guy, Dwan Hameed, Katy Hartzell, Evan Piccolo, Selena Piñero, Giovanni Rodriguez, Cassandra Slough, Mackenzie VanHorn, Maren Walsh, Mya Brown (professor)

Research to Performance: Dynamic Devised Plays

Four original performances. Students used strategies from Anne Bogart and Tina Landau’s Viewpoints and Tectonic Theatre Group’s Moment Work to build these short works in progress. These methods allow groups to create new plays collaboratively, working on their feet, rather than as individuals writing on the page. Students have shared, interpreted and synthesized extensive research driven by their own curiosity. A brief Q & A session will follow the performances.

Seth Nesbitt, Robert Giumarra, Giovanni Rodriguez, Diamond Hoggard-Shannon, Amanda Gydesen, Ryan Parrish, Michaela Buckley, Bayana Burnell, Abigail Hines, Anastasia Grimando-West, Addie Torres, Evan Piccolo, Amy Lynn Budd (instructor)

We Band of Prodigals: the ‘Kill Shakespeare’ Live Graphic Novel Process

In February of 2022, professors Toby Malone and Patrick Mathis collaborated with a group of students and faculty members to create ‘Kill Shakespeare: the Live Graphic Novel’, which performed to a sold-out audience at the Waterman Theatre. Join both professors to discuss the creation and challenges of translating a graphic novel into performance form.

Toby Malone, Patrick Mathis

Kill Shakespeare Capstone Presentation

A showcase of the media editing that was presented within the Kill Shakespeare live graphic novel including animation and video effects.

Jeremy Eldred

“Um, Actually...”: the Dramaturgy of ‘Dungeons and Dragons’
Culture in ‘She Kills Monsters’

A presentation of dramaturgy work relating to SUNY Oswego’s April production of “She Kills Monsters.”

Dominique Baker-Lanning, Kuvar Bhatnagar, James Hough, Toby Malone, Patrick Mathis

Play Reading: “Most Likely to Succeed” by Sean Patrick Ryan

James returns to high school for his 5-year reunion and finds himself talking to someone from his past who he never thought he’d see again.

Sean Ryan, Nick Sweet, Katy Hartzell

QUEST 2020 POSTERS

Atmospheric and Geological Sciences — Geology

- 1. Analysis of Glacial Erratics at Rice Creek Field Station, Oswego, NY**
John Christopher, Kathryn Ploss, Gabrielle Moro, Joseph Maier
- 2. Middle School Student Contributions to Undergraduate Earth Science Research at Rice Creek Field Station, Oswego, NY**
Gabrielle Moro, John Christopher, Ian Insley
- 3. Physical modeling of the impact of bank coherency on river morphology**
Michael Smith
- 4. Establishing a Framework for Interpreting Sediment Grain size as a Proxy for Hydroclimate Changes at Searles Lake, CA**
Dr. Justin S. Stroup, Mary Sorensen, Rebeca Nessel, Dr. David McGee, Dr. Tim K. Lowenstein, Kristian J. Olson, Dr. Christine Y. Chen, Mark Peaple, Dr. Sarah J Feakins, Dr. Joseph J. Janick, and Jade Brush
- 5. An assessment of the evolution of Junius Ponds, NY from 1938 to 2019: Lake and wetland changes pre and post I-90 construction**
Karissa Sumell, Dr. Justin Stroup, Sarah King, and Richard Frieman
- 6. Establishing the Stratigraphic Framework for New Samples From Searles Lake**
Hayley Mosher, James Coble and Dr. Justin Stroup
- 7. A first look at bog cores from Junius Ponds, NY**
Emily Dolan, and Dr. Justin Stroup
- 8. Examining the Petrology and Grain Size of Glacial Sediment at Rice Creek Field Station, Oswego, NY**
Joseph Maier, Kathryn Ploss
- 9. Assessing Drying Times of Evaporite Lake Sediments: Low Temperature Oven vs. Freeze Dryer**
James Coble, Hayley Mosher and Dr. Justin Stroup

Biological Sciences

- 10. Do rainbow smelt in Lake Ontario display two recently evolved ecotypes?**
Justin Searles
- 11. The influence of noise pollution on bird diversity**
Veronica Wright
- 12. Comparative anatomy of the unifacial and bifacial regions of the sword-shaped leaves of the Sweet Iris, *Iris pallida***
Kathryn Hunt, Caleb Stahl
- 13. Gut microbes and uric acid metabolism in *Drosophila melanogaster***
Leticia Preciado

- 14. What state is environmental DNA found in water samples and does that affect detection rates in the River Otter?**
Sydney Waloven
- 15. Examining the role of alpha-actinin in Dictyostelium response to mechanical stimuli**
Stephanie Arcello
- 16. Creating genomic resources for environmental DNA assay development for threatened and endangered turtle species” in the archives but titled**
Lilly Pavord
- 17. Understanding the role of actin-crosslinking protein filamin in mechanosensation of Dictyostelium cells**
Colin Harrington
- 18. Molecular cloning of Dictyostelium filamin lacking the actin-binding domain**
Sarah Buckler
- 19. Histopathology of a mantle edge fibroma in a juvenile wavyrayed lampmussel, *Lampsilis fasciola***
Lauren Degnan
- 20. Developing environmental DNA assays to survey for the Fisher**
Caroline Sheldon
- 21. Investigating synergistic growth of two gut bacteria: *Lactobacillus* and *Acetobacter***
Hiruni Dodangoda, Precise Mcgirt
- 22. Testing for the presence of Ranavirus and chytridiomycosis in amphibians**
Shawn Geary, Santiago Soto
- 23. Examining the role of Talin-A in mechanosensation of Dictyostelium cells**
Scott Howe
- 24. The Comparative Study of Eggshells of Passerine Birds**
Muhammadzohir Hidoyatov
- 25. Seasonal differences in mammal activity at Rice Creek Field Station**
Nicole Rose
- 26. Comparison of the maxilla and lower jaws of the burrowing asps *Atractaspis irregularis*, *Atractaspis aterrima*, and *Homoroselaps lacteus***
Regan Saltzer
- 27. Evaluating the Distribution And Diversity of New York State Crayfishes at Rice Creek Field Station**
Cait Stearns, Sayuri Pacheco
- 28. A genetic suppressor screen to find novel partners of an adhesion regulator *KrsB* in *Dictyostelium discoideum*** Emily Finger

Chemistry

29. **SUNY Oswego Agricultural Testing and Analysis Laboratories – Grain Testing Internship: Expand your Horizons!**
Jenna Gotte, Timothy Bodah, Garrett Hausman
30. **Synthesis and Design of an NNN-Pincer Ligand**
Michael Scott
31. **Designing a drug analysis experiment for forensic students**
Pruthuvi Heenatigala, Manoj Santhakumar, Oshadhi Theshan Palanda Liyanage Perera
32. **Analysis of Soil Profile for Presence of Lead**
Claire Millington
33. **Biophysical Investigation of the Function of Enzyme 3DL1**
Ali Khan
34. **Development of a Photodegradable Polyester**
Bailey Phelps
35. **Atmospheric Concentrations of PCBs, PBDEs and Organochlorine Pesticides**
Daria Savitskaia
36. **Optical and Transport Properties of Inorganic Perovskites**
Roselyn Tofa

Communication Studies

37. **Does the Truth Matter in Politics? A Review of Campaign Advertisement Law in America**
Thomas Waizenegger

Computer Science

38. **Paper Game: UI - A fantasy tabletop RPG played with a Computer interface**
Tonia Sanzo
39. **Piptopiae**
Christian DeVito
40. **What does a Software Engineering degree from SUNY Oswego look like?**
Matthew Fernandez
41. **Pick Me Up: The Carpooling App**
Alexander Lawrence, Ethan Mess
42. **Natural Language Understanding of Clinical Practice Guidelines**
Rose Fontana, Kate Gordon, Adrian Naaktgeboren, Dan Schlegel
43. **Survival Prediction of Breast Cancer Patient from Gene Methylation Data with Deep LSTM Network and Ordinal Cox model**
Guanghui Liu, Chris Bartlett, Isabelle Bichindaritzl
44. **Case-based Reasoning for the Analysis of Methylation Data in Oncology**
Christopher Bartlett, Guanghui Liu, Isabelle Bichindaritz

45. **Biomedical and Health Informatics Demo Lab**
Paola Marín Veites, Miracle Chinweuba
46. **Exploration of Methods to Analyze Epigenetics and Epidemiology of Acute Myeloid Leukemia Using Python and R**
Sarah Mason

Curriculum and Instruction

47. **Math Literacy: A Primer to Understanding Problem Solving Skills Through Reading in A Secondary School**
Brian Dawson

Electrical and Computer Engineering

48. **Thrust measurements in ionic rotary systems**
Waley Zhang, Kwabena Boateng, Tyrone Clarke, Adedayo Adeyanju, Mohamed Ayad, James Guidi, Adrian Ieta

Health Promotion and Wellness

49. **OUR PLATE: Models for Culturally Inclusive Nutrition Education**
Rita Ntim-Gyakari, Dr. Sandy Bargainnier, Dr. Najah Zaaeed

Mathematics

50. **Susan Decker**
Alexandra Hayes, Jonathan Schmidt
51. **Square Root Extraction Method in Ancient India**
Ka Ying Chan
52. **Edouard Lucas**
Jourdan Lord
53. **Analytical predictions of world events through the eyes of Nate Silver**
Brian Dawson, Devin Sagendorf
54. **The Four Color Map Theorem**
Deanna Santiago
55. **Joseph Fourier: Mathematician - Physicist - Historian**
John Zammiello, Sean Goodhue
56. **Georg Cantor: Sets and Infinity**
Matt Blair, David Hennigan

Political Science

57. **The Effects of High Exposure to Climate Change Issues Online on Political Polarization**
Dylan Genthner

Psychology

58. **The Relationship Between Model Size, Positive Body Image Education, and Body Self-Esteem**
Kelsey Roberts, Jillian Hunt, Grace Strojny, Ashlee Moore

59. Health consciousness and disease avoidance

Zach Carapetyan, Adam Fay

60. Life history theory as a predictor for mate age preferences on the SUNY Oswego campus

Emily Gordon, Adam Fay

61. Effects of practicing mindfulness on the temptation to abuse alcohol

Erin David, Shay Elster, Samara Rice

62. Blinking and thinking: Explorations of blinking and looking during a working memory task in children

Alex Rivera, Gabi DeAngelo, Carley Estep, Nicole Thomas, Skyler Stisser, Taylor Trainor, Ian Rowe, Leigh Bacher

63. MBSR Stress Reduction Study

A'Licia Carr, Stephen Thompson, Stacey Clark, Lauren Wright, Meghan Rowe, Karen Wolford

64. Sensory Processing and Perception of Emotions

A'Licia Carr, Tianna Moxley, Emani Blue, Emily Bovier, Adam Fay

65. Thematic analysis of Intimate Partner Violence (IPV) reports by college students

Meghan Ransford, Samara Rice

66. Does Pupil Diameter Predict the Effects of Cognitive Load or Incentive on Working Memory Performance?

Ian Rowe, Leigh Bacher

67. Associating Facial Symmetry to Enhanced Memory Retention

Justine Mahler, Adam Fay

Theatre

68. How about From Page to Performance: The Scenic Design Process From Script Analysis to Opening Night

Amanda Estrella

69. 'Fun Home' Stage Management Binder

Nicole Caroselli

70. THT 314: Stage Properties

Oliver Pratt, Alexis Miller, Matthew Larkin, Dwan Hameed, Samuel Gregory, Tatyanna Gay, Amanda Estrella, Lyta Dusel, Darian Deeley, Jessa Costa, Nicole Caroselli, Nathaniel Canfield, Oluwaseyi Afolayan | Faculty: Ola Kraszpuska

71. From Page to Performance: The Scenic Design Process from Script Analysis to Opening Night.

Amanda Estrella

QUEST 2020 SPEAKER INDEX

► A	Jayden Cruz.....	11	Piper Goodleaf.....	8
Adedayo Adeyanju.....	Tammy Cummings.....	13	Emily Gordon.....	26
Oluwaseyi Afolayan.....	Kyle Curtis.....	5	Kate Gordon.....	15, 25
Giovanni Anastasio.....	► D		Jenna Gotte.....	6, 25
Kiana Anderson.....	Erin David.....	26	Sarah Gray.....	10
Isaac Annal.....	Taylor Davis.....	15	Samuel Gregory.....	26
Daniela Aquino.....	Brian Dawson.....	25	Anastasia Grimando.....	22
Stephanie Arcello.....	Gabriella DeAngelo.....	20	James Guidi.....	13, 25
Josh Arnold.....	Darian Deeley.....	26	Lauren Guilds.....	16
Ishara Aryal.....	Lawrence Defay-Altenor.....	22	George Gurgis.....	5
Samantha Austin.....	Brandon DeFrancesco.....	10	Tyler Guy.....	22
Mohamed Ayad.....	Lauren Degnan.....	4, 24	Amanda Gydesen.....	22
► B	Awa Dembele.....	17		
Leigh Bacher.....	Xidao Deng.....	15	► H	
Ryan Bailine.....	Christian DiBiase.....	5	Dwan Hameed.....	22, 26
Dominique Baker-Lanning.....	Joseph DiGerolamo.....	14	Colin Harrington.....	24
Sandra Bargainnier.....	Dylan DiGrazia.....	9	Katherine Hartzell.....	22, 23
Kaitlyn Barney.....	Hiruni Dodangoda.....	24	Garrett Hausman.....	25
Christopher Bartlett.....	Emily Dolan.....	24	Alexandra Hayes.....	25
Lis Benavides.....	Breck Donohue.....	10	Pruthuvi Heenatigala.....	25
Daniel Bergin.....	Eva Doty.....	9	David Hennigan.....	25
Susan Bertonneau.....	Kristie Drzewiecki.....	5	Karla Hernandez-Paz.....	4
Kuvar Bhatnagar.....	Lyta Dusel.....	26	Muhammadzohir Hidoyatov.....	24
Matthew Blair.....	► E		Abigail Hines.....	22
Emani Blue.....	Christopher Eastman.....	11	David Hite.....	10
Kwabena Boateng.....	Alexander Ehrenberg.....	18	James Hough.....	23
Timothy Bodah.....	Jeremy Eldred.....	22	Deborah Howard.....	12
Kayla Bonasera.....	Maria Elena.....	7	Scott Howe.....	24
Alexandra Borowsky.....	Kayla Elfers.....	22	Sien Hu.....	20
Olivia Bottari.....	Shay Elster.....	26	Tyler Hughes.....	21
Jared Bouldin.....	Carley Estep.....	26	Joshua Hull.....	19
Emily Bovier.....	Amanda Estrella.....	26	Emma Hulsing.....	17
Hannah Brown.....	Nicole Evans.....	18	Jillian Hunt.....	25
Adira Brown-Devirgilio.....	► F		Kathryn Hunt.....	5, 24
Sarah Buckler.....	Li Fang.....	15	Mercedes Hunt.....	16
Michaela Buckley.....	Hamdi Farah.....	15	Steven Hust.....	13
Bayana Burnell.....	Blake Farnham.....	13	► I	
Marcia Burrell.....	Adam Fay.....	26	Ian Insley.....	24
► C	Allison Feely.....	4	► J	
Megan Campbell.....	Emily Finger.....	8, 24	Dakota Jackson.....	9
Nathaniel Canfield.....	Tiffany Flores.....	4	Renasha James.....	7
Zachary Carapetyan.....	Richard Frieman.....	24	Rachel Janish.....	15
Nicole Caroselli.....	Wyatt Fulton.....	18	Samantha Jenks.....	20
A'Licia Carr.....	► G		Spencer Johnson.....	21
Kevin Cavalier.....	Lindsey Gancasz.....	4	Mariah Johst.....	19
Anthony Chalmers.....	Ryan Gannon.....	4	Noah Jones.....	21
Nicholas Chilson.....	Alexander Gault-Plate.....	15	Malik Jones.....	9
Miracle Chinweuba.....	Tatyanna Gay.....	26	► K	
John Christopher.....	Fadi Gaye.....	17	Ali Khan.....	6, 25
Stacey Clark.....	Christopher Gayvert.....	7	Ashish Kharka.....	14
Samantha Clarke.....	Shawn Geary.....	24	Sarah King.....	24
Tyrone Clarke.....	Dylan Genthner.....	25	Michael Kirsch.....	8
James Coble.....	John Gillies.....	21	Adam Kuhn.....	5
William Corsi.....	Robert Giumarra.....	22	Derek Kuhn.....	6
Amanda Costa.....	Nathaniel Goldstein.....	4	Koty Kurtz.....	5
Jessa Costa.....	Sean Goodhue.....	25		
Abigail Cotner.....				
Matthew Crary.....				

► L

Matthew Larkin.....	26
Trieu Le.....	17, 18
Jacob Lewis.....	10
Kerisha Lewis.....	10
Nicole Licourt.....	4
Guanghui Liu.....	25
Zoraida Lopez.....	16
Jourdan Lord.....	25

► M

Christopher Maddaloni.....	15
Justine Mahler.....	26
Joseph Maier.....	24
Toby Malone.....	22, 23
Paola Marín.....	25
Kenneth Marshall.....	12, 13
Sarah Mason.....	25
Patrick Mathis.....	22, 23
Richard McCabe.....	15
Precise Mcgirt.....	24
Kyle Meade.....	10
Brett Meerdink.....	17
Linden Merrill.....	21
Alexis Miller.....	26
Margaret Miller.....	8
Claire Millington.....	25
Ashlee Moore.....	25
Delani Morgan.....	10
Gabrielle Moro.....	24
Philip Mosher.....	6
Hayley Mosher.....	24
Tianna Moxley.....	21, 26

► N

Seth Nesbitt.....	22
Allen Nguyen.....	14
Gigi Niu.....	6
Rita Ntim-Gyakari.....	15, 25

► P

Sayuri Pacheco.....	24
Ryan Parrish.....	22
Anthony Pasquarella.....	21
Ryan Paternoster.....	4
Lillian Pavord.....	24
Miles Petersen.....	5
Rudolph Petter.....	13
Bailey Phelps.....	25
Evan Piccolo.....	22
Laura Piekunka.....	16
Selena Piñero.....	22
Edward Pisacane.....	11
Kathryn Ploss.....	24
Anthony Pompa.....	9
Jason Powers.....	16
Oliver Pratt.....	26
Leticia Preciado.....	24

► Q

Margaret Queen.....	10
---------------------	----

► R

Ritu Radhakrishnan.....	12
Seamus Raia.....	10
Tania Ramalho.....	13
Meghan Ransford.....	26
Taylor Rechichi.....	10
Francesca Rescigno.....	5
Brayan Reyes.....	21
Theo Rhodes.....	19
Samara Rice.....	19, 20, 21, 26
Kimberly Rice.....	13
Dawson Rieman.....	5
Alexandra Rivera.....	20, 26
Robert Robbins.....	10
Kelsey Roberts.....	25
Jenn Robilotto.....	18
Giovanni Rodriguez.....	22
Nicole Rose.....	24
Ian Rowe.....	26
Meghan Rowe.....	26

► S

Devin Sagendorf.....	25
Regan Saltzer.....	24
Jessica Sandy.....	5
Manoj Sehan Santhakumar.....	25
Deanna Santiago.....	25
Andrew Saunders.....	21
Daria Savitskaia.....	25
Rebecca Sawler.....	21
Courtney Sayre.....	15
Jonathan Schmidt.....	25
Patrick Schultz.....	16
Autumn Schunk.....	16
Michael Scott.....	25
Chelsie Scott.....	5
Morgan Scott.....	10
Justin Searles.....	24
Anne Seichopin.....	15
Stefinie Senquiz.....	5
Emily Schaffer.....	15
Eyal Shamban.....	21
Tori Shaw.....	5
Sam Shebert.....	15
Caroline Sheldon.....	24
Galappaththige Binura Samodya Silva.....	13
Rachel Simizon.....	19
Rahsone Simpson.....	5
Cassandra Slough.....	22
Madelyn Smith.....	5
Michael Smith.....	24
Dylan Smith.....	17
Shannon Soccocio.....	11
Matthew Sodano.....	18
Mary Sorensen.....	24
Santiago Soto.....	24
Logan Sperano.....	17
Kimberlynn Sprague.....	9
Caleb Stahl.....	24
Caitlyn Stearns.....	24
Jada Sterling.....	10
Skyler Stisser.....	26
Shannon Stone.....	15
Grace Strojny.....	25
Justin Stroup.....	24
Alec Suits.....	15

Karissa Sumell.....	24
Nicholas Sweet.....	23
Eldad Sylvestre.....	7

► T

Lillian Talmage.....	16
Abhishek Thapa.....	5
Oshadhi Theshan.....	25
Nicole Thomas.....	26
Stephen Thompson.....	26
Julia Tilley.....	10
Stephanie Timpe.....	11
Roselyn Tofa.....	25
Tyler Toomey.....	18
Jasmine Tovar.....	5
Taylor Trainor.....	26
Dakota Trejo.....	19

► U

Haley Uityvlugt.....	5
Michelle Urman.....	6

► V

Ethan Van Blommestein.....	14
Nicolas Van Kempen.....	16
Eusebio Omar van Reenen.....	21
Mackenzie VanHorn.....	22
Francis Venne.....	14
Sabrina Ventrano.....	10

► W

Emily Wagner.....	15
Thomas Waizenegger.....	25
Sydney Waloven.....	24
Timothy Walrath.....	15
Maren Walsh.....	22
Xiaochen Wang.....	12
Gabriel Warner.....	16
Shane' Weir.....	15
Jiu Wen.....	10
Lauren Wensley.....	13
Ian White.....	16
Benjamin Wilson.....	19
Morgan Wolanin.....	9
Rebecca Wolff.....	6
Karen Wolford.....	26
Veronica Wright.....	24
Lauren Wright.....	26

► Y

Ka Ying Chan.....	25
-------------------	----

► Z

Najah Zaaeed.....	25
John Zammiello.....	25
Carolyn Zeitz.....	5
Huiyi Zhang.....	21
Waley Zhang.....	25

HISTORY OF QUEST

In 1979, The Scholarly and Creative Activity Committee (SCAC), then known as the Faculty Research Committee (FRC), wanted to develop ways to encourage more research on campus. One suggestion was to have a Scholarly Activities at Oswego Conference Day, where faculty could present their research to the campus community. Dr. Helen Daly organized the day and it was decided to call it "Quest" in honor of the College's "quest for knowledge". Quest had an impressive 77 presentations that first year.

In 1982, the administration knew this would be a successful annual program and canceled classes for the first time to bring additional focus to the event. In 1996, Quest was dedicated to the memory of Dr. Daly, who died in 1995, because she took the concept of Quest and turned it into an annual tradition that celebrates campus-wide scholarly and creative activity.

Today Quest is a mix of students, faculty, staff and campus-wide presentations with more than 350 participants.

◆ PURPOSE OF QUEST 2020 ◆

Quest is a symposium dedicated to sharing the scholarly and creative pursuits of students, faculty, and staff of the State University of New York at Oswego. It is sponsored by the Division of Graduate Studies, Office of the Provost, the Scholarly and Creative Activities Committee, and the Center for Excellence in Learning and Teaching. Presentations take the form of scholarly papers, panels, debates, plays, readings, recitals, and demonstrations. The purposes of this conference are the following ◆ to recognize students, faculty, and staff engaged in scholarly and creative activities at SUNY Oswego ◆ to encourage and share scholarly and creative efforts across disciplines ◆ to identify the faculty-led student research taking place on campus

◆ THANK YOU ◆

for helping to make this day possible —

We are grateful for the support from the Office of the Provost and the staff and volunteers from the Division of Graduate Studies, Scholarly and Creative Activity Committee, Departmental Quest representatives and Penfield Library that helped bring this event to life. Special thanks to the Quest 2020 Planning Committee:

Kristen C. Eichhorn, Dean, Graduate Studies

Laura Spenceley, Associate Dean, Graduate Studies

Shana Vandish, Graduate Studies

Kelly Dolan, MBA, Graduate Student

Tiphonie Gonzalez, Counseling and Psychological Services

Matthew Baker, Chemistry

Marybeth DeGroot, Design and Print Services

Sarah Weisman, Penfield Library

Zachary Vickery, College Archivist Librarian

Kathryn Johns-Masten, Special Collections and Systems Librarian