



# WELCOME

FROM PRESIDENT DAVID R. HARRIS

Each spring for the last 33 years, the College has paused classes to celebrate achievement of our students in scholarship, research and the arts.

Welcome to the 2023 Steinmetz Symposium.

The Union community values collaboration between and among students and faculty. The presentations, exhibits and performances you'll see today reflect the intellectual and creative curiosity of our students. Today's events also reflect the boundless dedication of our faculty and staff.

On Steinmetz day, it is exciting to see the energy of our students, the joy they find in developing and presenting their work and the support they show for one another. Today will be a meaningful experience that stays with our students. We hear often from alumni that participating in Steinmetz was a significant and transformational milestone.

Please join me in thanking the organizing committee for the 2023 Steinmetz Symposium. In particular, I want to acknowledge Heather Watson, associate professor of physics and astronomy and director of undergraduate research; and Ruth Cotter, assistant to the dean of studies.

Finally, I hope you can join us for Prize Day in Memorial Chapel on Saturday, May 13, at 1 p.m., when we will recognize our students for scholarly excellence and leadership.

## The Maker Web

On Steinmetz Day, the Maker Web will be hosting an exhibition in the Imagine Lab (Wold Center 118) to display some of the tools, technologies and techniques that students use to create work, develop research projects and engage coursework at Union College. Come to learn about various digital fabrication processes including 3D printing, 3D scanning, laser cutting, CNC milling and machining and see how students are using these tools to develop their research and academic projects. The Imagine Lab will be open and staffed from noon to 2 p.m. and all are welcome to stop by to see the exciting tools Union students use to refine their work and expand their education.

— COLE BELMONT, DIRECTOR OF THE MAKERSPACE

To see the online program for the 2023 Steinmetz Symposium, visit: <https://steinmetz.union.edu/program>



# SCHEDULE OF EVENTS

## Friday, May 12

### Steinmetz Symposium

9:00 a.m. – 5:00 p.m.

Presentations on student creative, scholarly and research achievement. Programs and information are available throughout campus. Student presentations begin at 9:00 a.m.

9:00 a.m. – 4:00 p.m.

### The 2023 Annual Steinmetz Student Visual Arts Exhibition

The exhibit is open March 27-May 14, 2023, Monday-Friday 9:00 a.m. to 4:00 p.m. It will be open Steinmetz weekend as well. The exhibition features 231 artworks by 77 students in digital art, drawing, painting, photography, printmaking, and sculpture.

CROWELL AND WEST GALLERIES, FEIGENBAUM CENTER FOR VISUAL ARTS

4:00 p.m.

### Steinmetz Dance Performance

The 2023 Lothridge Festival of Dance highlights student performers and choreographers from across our community—including dance minors presenting their choreographic research, students enrolled in dance practicums and leaders of dance organizations.

NOTT MEMORIAL

8:00 p.m.

### Union College Jazz Ensemble

Professor Tim Olsen, Director

EMERSON AUDITORIUM, TAYLOR MUSIC CENTER

## Saturday, May 13

### Prize Day

1:00 p.m.

### Presentation of Prizes and Recognition

MEMORIAL CHAPEL

7:00 p.m. – 9:00 p.m.

### Union's Got Singing Talent Show

Student competitors from Union College will be singing live and be judged by three superstars in the musical theater and pop industry. Lisa Brescia, Craig Carnelia, and Robert Taylor '78 will determine the winner of the night. Tickets are \$5 (Union College ID) or \$15 (general admission).

MEMORIAL CHAPEL



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**THE BOOKSTORE  
WILL BE OPEN:**

Friday, 8:45 a.m. – 5 p.m.  
Saturday, 10 a.m. – 3 p.m.  
Sunday, closed

**SCHAFFER LIBRARY  
WILL BE OPEN:**

Friday, 8 a.m. – midnight  
Saturday, 10 a.m. – midnight  
Sunday, 10 a.m. – 2 a.m.

**THE NOTT MEMORIAL  
WILL BE OPEN:**

Friday, 10 a.m. – 6 p.m.  
Saturday, 10 a.m. – 6 p.m.  
Sunday, 10 a.m. – 6 p.m.

# THE 2023 ANNUAL STEINMETZ SYMPOSIUM STUDENT ART EXHIBITION

9:00 A.M. – 4:00 P.M. / CROWELL AND WEST GALLERIES IN THE FEIGENBAUM CENTER FOR VISUAL ARTS

The Visual Arts Department is delighted to present our 2023 Steinmetz Symposium Student Art Exhibition, an annual highlight of student work selected by our Studio Fine Arts faculty. We are proud of our students' achievements and delighted to share all their hard work with the Union community. The breadth and diversity of works highlight the range of courses students are actively engaged in and also demonstrate ways in which they push the boundaries between materials and genres.

LORRAINE COX, PH.D. / DEPARTMENT CHAIR

The exhibition features 231 artworks by 77 students in digital art, drawing, painting, photography, printmaking and sculpture.

Vhalky Abraham  
Elizabeth Arredondo  
Georgia Baer  
Shriya Balaji  
Gabriela Balakier  
Jayson Bromberg  
Tam Vu Chi  
Mircy Coca  
Ryan Conway  
Samuel Crowley  
Paige Curran  
Sarah Dames  
Sarah Davenport  
Vicky Davison  
Chris Delances  
Haley Dineen  
Victoria Donatucci  
Emma Drake  
Emily Evans  
Julien Evans  
Idalis Fuentes  
Maya Gempler  
Justen George  
Matt Giarrattana  
Ava Gray Graichen

Collin Harrington  
Alexis Henrikson  
Cate Hicks  
Hieu Hoang  
Kali Jauregui Morris  
Fuka Kanesaka  
Nolan Kelley  
Emma Kennedy  
Athanasia Kytoudi  
Isaac Levey  
Alexandra Lim  
Isobel Mackinnon  
Betsy Matthew  
Forrest May  
Lydia McElroy  
Andrea Mullen  
Morgan Napier  
Saliha Nazir  
Anna Nickman  
Andrew Nordell  
Katherine O'Brien  
Elizabeth Owens  
Isabel Pacchiana  
Sherlandy Pardieu  
Grace Parini

Evan Perry  
Alice Phan  
Maddie Phan  
Iris Phenix  
Lucas Piconi  
Leah Piscitelli  
Mia Polenberg  
Claudia Porto  
Jocelyn Poste  
Josephine Proctor  
Juliette Richenthal  
Sophia Rothberg  
Isabella Russell  
Nova Shek  
Efu Takahashi  
Ysabel Thompson  
Paige Tromblee  
Alissa Tsay  
Lily van Baaren  
Bridget Walsh  
Leila Warde  
Lili Wang  
Suzanna Wright  
Sinthia Xhabej  
Emily Zucco





**FACULTY SPONSORS**

**Professor Allison Conley**  
DRAWING AND PRINTMAKING

**Professor Chris Duncan**  
SCULPTURE

**Professor J.B. Morton '10**  
PHOTOGRAPHY

**Professor Laini Nemett**  
PAINTING

**Professor Fernando Orellana**  
DIGITAL ART

# SESSION I

9:00 – 10:40 A.M. / CONCURRENT ORAL PRESENTATIONS

KARP 105

## Psychology of Gender and Aggression

**MODERATOR: CONOR O'DEA**

**9:00 / MITCHELL K. REINHART**

Masculine Threats and Motivations toward Muscularity

**9:20 / MITCHELL J. ASHTON**

"Are you really just going to let him do that?": Masculine Honor Beliefs, Threat and Confrontation

**9:40 / TAM VU CHI**

Reducing Performative Activism through a Short Online Intervention

**10:00 / JORDAN M. WHITTIER**

The Creation and Validation of a Scale Assessing the Motivations Underlying Honor Ideology

KARP 103

## Anthropology and Sociology

**MODERATOR: STEPHEN LEAVITT**

**9:00 / FIONA XU**

Analyzing Hometown Health's Social Determinants of Health Program and its Community Health Network

**9:20 / JOCELYN POSTE**

Symbiotic Relationships with Non-human Companions: Therapy and Emotional Support Animals on College Campuses

**9:40 / SAMHITA BHEEMIREDDY**

Analysis of the Schenectady New Hire Community Panel: A Contemporary Police Reform Initiative

**10:00 / MAEVE P. DABY**

A Blessing or a Curse: Utilization and Inclusivity in Faith-Based Organizations Servicing the Homeless

**10:20 / REBECCA F. TEGIACCHI**

The Effect of Alzheimer's Disease Progression on Caregivers' Mental Health

LIPPMAN 016

## Economics

**MODERATOR: STEPHEN SCHMIDT**

**9:00 / RUNFEI LIU**

The effectiveness of fiscal policy in mitigating the economic impact of COVID-19

**9:20 / RANEY J. NEWMAN**

Tweetonomics: The Relation Between Twitter Sentiment and Cryptocurrency Returns

**9:40 / EVAN J. FARR**

Determinants of Chinese Labor Flows to Sub-Saharan Africa: A Gravity Approach

**10:00 / TRISHA D. AGRAWAL**

How Much Did the Rise of Energy Prices Contribute to the U.S. Dollar and Euro Reaching Parity?

LIPPMAN 101

## Argentina Mini-term 2022: Social Movement, Human Rights and the Environment: Part 1

**MODERATOR: MARITZA OSUNA**

**9:00 / GWYNETH SULTAN**

Kindness, Charity, and Social Justice: Finding 'Jewishness' in Buenos Aires, Argentina

**9:20 / PATRICK MULREADY**

"First they want to eat:" Citizens' Perceptions of Climate Change in Argentina

**9:40 / ALINA WHITESIDE**

Skinny, Blond, and White: Female Beauty in Argentina

**10:00 / NATALIE GIORDANO**

"Nunca más:" Physical Reminders of an Ugly Past in Buenos Aires, Argentina

# SESSION I

9:00 – 10:40 A.M. / CONCURRENT ORAL PRESENTATIONS

**ISEC 118**

## Advanced Composite Material Designs

**MODERATOR: RON BUCINELL**

**9:00 / SHANNON A. TUCKER**

The Design and Manufacturing of a Sustainable Composite I-Beam—SAMPE 2023

**9:20 / AIDAN P. KASK**

Analysis of Optimal Operating Frequencies For Skiing Apparatuses via Material Layer Optimization

**9:40 / JUSTIN M. PASCHKE**

Development of a Hybrid Golf Head Using Sustainable Resources and Cost-Efficient Materials

**10:00 / KENYON C. PELLETIER**

Development of an Affordable Hybrid Golf Shaft Using Sustainable Materials

**WOLD 225**

## Nanotechnology

**MODERATOR: REBECCA CORTEZ**

**9:00 / LEXIS MCCABE**

Reduction of Skin Surface Roughness via Facial Moisturizers

**9:20 / KATIE OLSSON**

Applications of Modified Graphene Oxide Membranes for Water Treatment

**9:40 / AIDEN C. ROWLEY**

Flexible Reduced Graphene Oxide (rGO) Micro-Supercapacitor Sensors

**10:00 / LUKE S. KILBY**

Manufacturing and Testing of Reduced Graphene Oxide Micro Supercapacitors

**KARP 002**

## Neuroscience

**MODERATOR: CHAD ROGERS**

**9:00 / TRAVIS RATHWELL**

Where did the time go? Using time judgment tasks as a predictor for adult ADHD

**9:20 / DANTE D. SASSO**

The Potential Influence of Anti-Transgender Bias on Memory and Judgements

**9:40 / AVANTI KHARE**

Evaluating the impacts of accent and semantic context on listening effort

**KARP 001**

## English 1: Creative Worlds

**MODERATOR: SHENA MCAULIFFE**

**9:00 / ABIGAIL SMITH**

Sticky Tape, and Other Reflections

**9:20 / ISABELLA RUSSELL**

The Dream Thief

**9:40 / GRAHAM KAPLAN**

Vouvant: A Tragic Love Story in the West of France

**10:00 / KASEY A. WALSH**

Women in Popular Culture Literature



# SESSION I

9:00 – 10:40 A.M. / CONCURRENT ORAL PRESENTATIONS

ISEC 120

## Ecology and Organismal Biology

MODERATOR: STEVEN RICE

9:00 / EMMA DRAKE

Mapping Hemlock Stand Distribution and Structure in Otsego County, NY to Develop Site-Specific Mitigation of Hemlock Woolly Adelgid

9:20 / RONAN COUGHLIN

Temperature and Direction-changing Effects on the Headbob Displays of Anolis sagrei

9:40 / CAITLIN WILLIAMS

Utilizing Captive-Bred Bearded Dragons to Study Sensory and Cognitive Capacity in Lizards

10:00 / MAYA GEMPLER

Reversal of Apoptosis (Anastasis) as a Homeostatic Mechanism in Mammalian T-lymphocytes

ISEC 124

## Stable Isotopes

MODERATOR: KATHLEEN LOGIUDICE

9:00 / JACOB ABBOTT

Stable water isotopes provide insight into the spatial variability of As and U in drinking water across the Northern Plains

9:20 / HAILEY STOLTENBERG

Peruvian Stalagmites as Indicators of Past Climate: Stable Isotope Record from 315 to 250ka

9:40 / AVERY CLAVEL

MIS 8 and MIS 9 Reconstruction from Aged Stalagmite Isotopic Values and Impacts on South American Summer Monsoon

ISEC 150

## Biochemistry + Surgical Techniques

MODERATOR: BRIAN COHEN

9:00 EMILY ARMLIN

Human Follitropin Receptor Lipid Raft Residency is Mediated by its Caveolin Binding Motif

9:20 / ISABEL G. LUBIN

Effect of lipid raft disrupting agents on FSHR-dependent cAMP production

9:40 / ELLA N. HARPER-SCHIEHL

Investigating Genetic Underpinnings of Depression

10:00 / AVI A. GAJJAR

Two Birds with One Stent: Venous Sinus Stenting and Weight Loss in Idiopathic Intracranial Hypertension Patients via a Multi-Center Study

10:20 / AVI A. GAJJAR

The Artery Much Less Traveled: The Experience with Intraoperative Angiography via Popliteal Artery Access





## SESSION II

10:50 A.M. – 12:30 P.M. / CONCURRENT ORAL PRESENTATIONS

**KARP 105**

### **Klemm Fellowship Presentations**

**MODERATOR: MARK DALLAS**

**10:50 / ELLA HARPER-SCHIEHL**

Klemm Fellowship: A Ghanaian Crash Course in Listening, Learning and Loving

**11:10 / ANUJA KONDA**

Giant Tortoises and Sea Lions: Unique Species of the Galápagos and Conservation Efforts to Protect Them

**11:30 / TALHA MUSHTAQ**

Rebuild the Blue: Restoring Fiji's Mangroves and Protecting its Sharks

**11:50 / AZIR NAWAZ**

The Peaceful People: Nepal's Healthcare, Rich Culture and Way of Life

**12:10 / MAYUR PABBA**

Swimming with Sharks and Planting Mangroves in Fiji

**KARP 103**

### **Political Science 1**

**MODERATOR: BRAD HAYS**

**10:50 / JULIANNA R. LISI**

The Impacts of DNA Evidence in the Courtroom

**11:10 / EMMA MALEY**

Socio-legal mobilization for SMO's: The Impact of Litigation efforts and media coverage for the Brady Campaign to Prevent Gun Violence

**11:30 / ABIGAIL O. STRAUZER**

Senatorial Courtesy Linked to Racial Disparity?

**11:50 / ANNA S. ZDUNCZYK**

Why Politicians Say Yes: The Politics Behind Building Polar Park

**KARP 002**

### **Psychology 1**

**MODERATOR: GEORGE BIZER**

**10:50 / HAYLEE A. SNOW**

Thoughts of nature, thoughts of god: The effects of exposure to nature on religiosity

**11:20 / KYLE A. HANNIBAL**

Programming for Attention: Personality Traits and Headline Selection

**11:40 / SANJIV SUNDERRAM**

The Interactive Effect of Dispositional and Induced Mindfulness on Free Throw Shooting

**LIPPMAN 014**

### **Sociology and Healthcare**

**MODERATOR: TIMOTHY STABLEIN**

**10:50 / AVI A. GAJJAR**

Political Barriers in Equitable Ischemic Stroke Care in the Post-Endovascular Mechanical Thrombectomy Clinical Trial Era

**11:10 / ARMANDA Y. NOEL**

Sociology and Health

**11:30 / NOVA K. SHEK**

Families with Neurodevelopmental Disorders and Society Response

**11:50 / GRACE E. NICOL**

Obenzinger Project: HealthySteps Intern for At-Risk Children in Schenectady

## SESSION II

10:50 A.M. – 12:30 P.M. / CONCURRENT ORAL PRESENTATIONS

LIPPMAN 101

### Argentina Mini-term 2022: Social Movement, Human Rights, and the Environment: Part 2

MODERATOR: MARITZA OSUNA

10:50 / JOCELYN POSTE

They Never Sleep: Feminists and LGBTQIA+ Movements in Argentina

11:10 / ANDREW BASSUK

Drinking Mate as Culture: The Argentine and American perspectives

11:30 / EBYAN ABSHIR

They Choose Not To Forget: Preserving Memory in Buenos Aires, Argentina

KARP 001

### English 2: Critical Visions

MODERATOR: JUDITH LEWIN

10:50 / AUGUST D'AMORE

Text, Taboo and Pleasure in the Resolution of the Chaotic Narrative

11:10 / KIMBERLYN FALCON

The Portrayal of Mexican (Im)migration in Children's Literature

11:30 / CAITLIN BOICE

The Art of Translation: An Analysis of Japanese to English Translation in Shinkai Makoto's "Your Name"

LIPPMAN 012

### French and Francophone Studies

MODERATOR: CHARLES BATSON

10:50 / SEBASTIAN KANIA

A Conversation of No Importance

11:10 / JANET FABODE

The Pandemic Hidden Within the Pandemic

11:30 / DEANA PATTERSON

Le système éducatif Belge au Congo: Il est effectif pour qui?

LIPPMAN 016

### Sociology and Education

MODERATOR: ROSEMARY PATTERSON

10:50 / JULIA C. RYBICKI

The Neoliberal Attack on Education: Burnout for Teachers and Increased Exposure to Student Food Insecurity Amid COVID-19 in Low-Income School Districts

11:10 / ABBY G. WILDER

Anti-Gay Curriculum: The Clash of Conservative Rhetoric and Queer Pedagogical Approaches

11:30 / TAYA J. MORGADO

Competency-Based Education and Its Effect on Math Assessment Scores

WOLD 225

### Mechanical Engineering 1

MODERATOR: WILLIAM KEAT

10:50 / RYAN GARDNER

Constant Velocity Joints for the 2023 Union College BAJA Racing Team Car

11:10 / DEVIN W. ROCHELLE

Design of SAE Baja Portal Gearboxes with Integrated Mechanical 4WD System

## SESSION II

10:50 A.M. – 12:30 P.M. / CONCURRENT ORAL PRESENTATIONS

**11:30 / ANDREW L. NORDELL**

Designing and Manufacturing a Human Powered Vehicle

**11:50 / NATHAN T. CONSTABLE**

Design of a Solar Tracking System with Independent Sensing Unit

**12:10 / SRIHARI BALAJI**

Laser Sintered Polyethylene Laminates - An Analysis

**ISEC 124**

### Electrical Engineering

**MODERATOR: LUKE DOSIEK**

**10:50 / JOHN M. PIPES**

A Machine Learning-Based System to Forecast Weather in Remote Locations

**11:10 / JAMES E. BROUDER**

Reducing the Cost of the Turtlebot3 Autonomous Mapping Rover

**11:30 / BAO VO**

Assistive Robot for People with Disabilities

**11:50 / LUKE O. MUSSELMAN**

Bite Hero: Endotracheal Tube Bite Guard and Fixation

**ISEC 150**

### Sigma XI Award Nominees

Presenting students have been nominated for this prestigious award with final judging based on these talks.

**MODERATOR: JEFF CORBIN**

**10:50 / MILES ACKERMAN**

Building a Confocal Laser-Scanning Microscope and Writing GUI-Based Control Software for Biological Imaging and 2D Material Characterization Purposes

**11:10 / MEGAN LEE**

Using stable isotope analysis to explore the exploitation of anthropogenic foods by gray squirrels and eastern chipmunks in urban and rural sites

**11:30 / JILL RAMEY**

Asking For It: An Examination of Victim Blaming Reasons and Correlates

**WOLD 128**

### Environmental Science and Policy

**MODERATORS: ANOUK VERHEYDEN-GILLIKIN / ANDREW MORRIS**

**10:50 / GRACE LEVINS**

The Effectiveness of Private Levees on Maintaining Productive Uplands from Sea Level Rise

**11:10 / CHRISTINE M. SWANSON**

Characterization of Stream Turbidity in the Catskills, New York: Insights into Environmental Controls

**11:30 / KELLEY DOLAN**

Environmental Contamination on Former Military Facilities and the Challenges of Economic Redevelopment

**11:50 / SYDNEY MCPARTLON**

Marine Mammal Protection and Regulations

**12:10 / JORDYN KERR**

Environmental Injustice: An Analysis of Environmental Impacts with regard to Sociological Disparities

**ISEC 118**

### Mathematics 1

**MODERATOR: BRENDA JOHNSON**

**10:50 / LICHUAN XIONG**

Puzzles and Games with Linear Algebra

**11:10 / MICHAEL D. NYIKOS**

Exploring the Art of Computer Graphics

**11:30 / SHIZHE LI**

Bipartite intrinsically knotted graphs with 21 edges

**11:50 / QUOC AN**

Some Different Ways to Prove The Irrationality of The Square Root of 2



## SESSION III

12:30 – 1:50 P.M. / POSTERS AND TEAM DISPLAYS

### TEAM DISPLAYS

WOLD  
(LOWER LEVEL)

#### JONATHAN FISCHMAN

Union College Robotics Crew—Micromouse Demos

#### MAX J. VAN DIJK

Baja SAE Design Competition Team—Vehicle Display

#### MOHAMED KAID

SAE Aero Design Competition Team—Aircraft Display

### POSTERS

WOLD ATRIUM

#### Natural Sciences and Engineering 1

##### SOFIA T. BARTH

Provenance of the Sitka Graywacke from Glacier Bay National Park in Southeast Alaska

##### ANDREW R. BOYD

Myoelectric Manifestations of Muscular fatigue in the Bicep Brachii when Using The Life Handle

##### MELANIE E. BOYLE

The Freezing Point of Salt Water at High Pressure on Europa

##### JAYSON T. BROMBERG

Analysis of the a0 (980) and a2 (1320) Mesons at GlueX

##### RACHEL P. BRYAN

Detrital Zircons Reveal Tectonic Translation of the Yakutat Terrane, Alaska

##### ELIZABETH-VERONICA M. CROWLEY

A Union College Observatory Study of Asteroid (993) Moultona

##### NIHA DAS

Time Series Observations of Four Asteroids in 2022

##### AYDANA DJOROEVA

Lightcurve for Koronis Asteroid (2498) Tesevich using the Union College Observatory

##### ALEXANDER N. FORSYTH

The Effect of Mangrove Tidal Pumping on Proximal Reef Systems

##### MAREN L. FRIDAY

The In-Plane Dielectric Properties of Graphene Oxide Membrane with Modification from Al<sup>3+</sup>

##### WILLIAM H. GOOD

Flexible Roughness Elements in a Turbulent Boundary Layer

##### JOHN D. GOODMAN

Fecal Indicator Bacteria indicate impairment of surface water quality in the Indian Kill Watershed in the Town of Glenville, New York

##### WILLIAM GRIMWOOD

A Marble of Ancient Construction: How much did it cost to build the Parthenon?

##### KATELYN E. HIRNAK

Alternate Ion Signalling and Its Effect on Metacaspase Activity

##### XIAOYU HU

Local microtopography affects bryophyte water loss more than differences in canopy structure

##### ALEXANDER JACOBS

Permeability and Stability Analysis of Copper cation modified Graphene Oxide Membranes (CuX-GO) for Fuel Dehydration Applications

##### C'LANNYE JAMES

Incorporating Octanethiol-functionalized Gold Nanoparticles into the Interior of Bilayer Peptoid Nanosheets

##### MAYA N. JONES

Investigating the Role of Cortisol Sensitivity SNP rs2918419 in Metabolic Syndrome

## SESSION III

12:30 – 1:50 P.M. / POSTERS AND TEAM DISPLAYS

### **ABHAY S. KASHYAP**

3-Dimensional Object Detection and Location Tracker in the Real World

### **RAJESH M. KHAMBETE AND MARISSA BURSTEIN**

What can Stable Isotope Analysis Tell us about Short-Tailed Shrews and Squirrels?

### **SEBASTIAN A. KOCH**

Ohm-Meter To Test Reduced Graphene Oxide Sensors

### **HALEY R. KRESCH**

The Effects of Robot Eye Gaze On Task Performance

### **VIOLA LI**

Ontogeny of Pheromones Among Five Drosophila Species of the Affinis Subgroup.

### **KYRA M. LUM**

Potential *S. commune* Metacaspase Inhibitors: Assessing a New Synthetic Approach

**ISEC ATRIUM  
(LOWER LEVEL)**

## **Natural Sciences and Engineering 2**

### **FINLAY A. MACDONALD**

Definitive Period for Asteroid (1389) Onnie

### **TIMOTHY S. MCGARRY**

The Effect of OD-PABA

### **CAROLINE O. MONACO**

Diel Biogeochemical Cycles and Tidal Pumping in a Tropical Mangrove Creek

### **ALEXIS R. NIKITAS**

The Design of a Tick-Collecting Robot

### **BEATRICE A. OGDEN**

Developing Methodology for Antibacterial Studies with Transition Metal Complexes

### **ETHAN D. PALIWODA**

Water Bear Gene Transformation and Fungal Stress Response

### **DEVIN M. RAMOS**

Analysis of TFOP Observations of NASA TESS Exoplanet Candidates

### **TRAVIS J. RATHWELL**

Using a hybrid model to simulate protein-DNA interactions

### **RUBAB RAZA**

Synthesis of Dual CCR5/CXCR4 Inhibitors In the Prevention of HIV Infection

### **NOAH A. SCOPTEUOLO-ROSEN**

Light Curves for Koronis Family Asteroids (2742) Gibson and (2833) Radishchev

### **JASON M. SINDONI**

Calibrated Light Curve of Asteroid (1725) CrAO

### **EMILY K. STEIN**

Synthesis of Metallo-Chemotherapeutics: Pyridine-Based Ligands with Copper and Nickel Containing Complexes

### **GWYNETH Y. SULTAN**

Comparison of Caveolin Interaction Motifs of the FSH Receptor and Other GPCRs

### **MILES T. TENG-LEVY**

Optimizing a Strain Wave Gearbox for 3D Printing

### **NICOLE C. TURPIN**

Ultrasound Neuromodulation in an Earthworm

### **DANIEL T. TYEBKHAN**

Evolving MoonBoard Bouldering Routes

### **JENNIFER M. WILLIAMSON**

Hiking Tracker

### **LOGAN J. WALKER**

Controlling Voxel-Based Soft Robots with Quality Diversity Algorithms

### **ANAN ZHOU**

Circuit breaker Failure Analysis

## SESSION III

12:30 – 1:50 P.M. / POSTERS AND TEAM DISPLAYS

SCHAFFER  
LIBRARY

### Humanities, Social Sciences and Health Sciences

#### MAYA C. ACAMPORA

Flexor Hallucis Longus Muscle Activation in Dancers versus Non-Dancers

#### JASON AYALA

Retrieval Practice and Context Reinstatement

#### NIKHIL AZHAGIRI

The Relationship Between Hospital Affiliation and Patient Welfare

#### ANDREW R. BASSUK

Urban Farming at Union College?

#### VIRAJ V. BRAHMBHATT

Analyzing potential risk factors and contributors to Breast Cancer to aid in guidelines for early screenings

#### BRANDON MITCHELL

Exercise and Incubation Effects in Creative Problem Solving

#### JACK DAVIS

Private Equity and Real Estate Allocation in Public Pension Funds

#### MARCUS C. DIAZ

Environmental Kuznets Curve in United States

#### AYDANA DJOROEVA

Spirituality predicts ability to “get in the zone” while neuro-exergaming among older adults

#### DAVID A. DOMBROVSKY

Investigating the Value of Neurosurgical Residency Websites During the Virtual Interview Cycle

#### SHARON J. DUBON ZELADA

Look Good, Feel Good: Internal and External Motivations to Confront Prejudice Differentially Affect Decisions to Confront

#### SIENNA A. DUNHAM

Prediction of Sound Based on Its Rhythmic Oscillation

#### ANDERS G. FISH

The resource curse in lithium-producing countries

#### KATIE M. GIBBONS

Personality Traits Correlation to Dream Factors

#### AIDA GIRMA

The Relationship between Parenting Styles and Overcoming Mental Fixation in Creative Idea Generation

#### ALEXA F. GONZALEZ

Factors That Affect the Development of “Deviant” Individuals

#### RYAN W. HAYES

Understanding GlobalFoundries: Initiation of Coverage Report

#### NICOLE HITCHCOCK

Social isolation during the coronavirus pandemic: Impact on cognition in those with mild cognitive impairment (MCI)

#### ANUSHKA KAIWAR

Are racists reclaiming the term racist? A novel examination of slur reappropriation

#### JUDE A. KAPPEL

Trade Organization Membership and Imports of Environmentally-Sensitive-Goods: What is the link?

#### LAURA KASO

Informal and Formal Economy, Corruption and European Union: The Modern Albanian Economy and its Flaws

#### RAYNA M. KATZMAN

Unequal Neighborhoods: A Comparative Case Study of Niskayuna and Schenectady

#### MELANIE L. KLUGMAN

Religious Correlates on Openness to Criminal Behavior

#### CONOR J. MCVEY

Tissue Retractor for Open Umbilical Hernia Surgery

## SESSION III

12:30 – 1:50 P.M. / POSTERS AND TEAM DISPLAYS

### **ELIZA J. MUNNS**

Alternative Surgical Headlamp to Reduce Surgeon's Chronic Neck Pain

### **OLIVIA PACHLA**

Two years later: In-home neuro-exergaming with iPACES for adolescent with Autism Spectrum Disorder

### **LUDOVICA D. PALMIERI**

Unemployment and Fertility: Cross-country Evidence from OECD countries

### **ELIZABETH M. PICA**

How Differences in Spain's Regional Healthcare Resources Impact Healthcare Across the Country

### **LEAH H. PISCITELLI**

Using Negative Space to Create a New Generative Story

### **SHAMS A. QURESHI**

Measuring EMG signals from the maximum voluntary contractions of the soleus and gastrocnemius muscles.

### **NOLAN M. RANDALL**

The Use of Electromyography in Myoelectric Prosthetics as a Method to Restore Functionality after Upper-Extremity Amputation

### **ALICIA SLAVIT**

The Effect of Cyclic Changes in Hormone Levels on Muscle Fatigue

### **ARMAAN S. UPPAL**

Racial Disparities in Spine Surgery A Systematic Review

### **BRANDON F. WERTHEIMER**

Social Security Bridge Strategy

### **KARLY E. WILLSON**

Skill-Related Neuroplasticity: An Exploration of Electrophysiological Markers Indicating a Shift in Cognitive Strategy

### **YUTONG WU**

Baroque Dance Workshop



## SESSION IV

1:50 - 3:30 P.M. / CONCURRENT ORAL PRESENTATIONS

KARP 105

### Minerva Fellowship Panel

MODERATOR: ROBIN OLINSKY

1:50 / ANNA TRANCOZO

Minerva Fellowship Presentation

2:10 / ABIGAIL STACK

Minerva Fellowship Presentation

2:30 / JILLIAN E GOLDBER

Minerva Fellowship Presentation

KARP 103

### Gender, Sexuality and Women's Studies

MODERATOR: DEIDRE HILL BUTLER

1:50 / MELANIE E. BOYLE

What it Means to be a Woman in STEM

2:10 / KATHRYN E. CAWLEY

Women's Reproductive Freedom Before and After  
Roe v. Wade

2:30 / SKYLER V. LIEGEOT

A Critic of Income Inequality since the COVID-19  
Pandemic in the US: The Feminist Anarchist Response

2:50 / REBECCA H. CLAYMAN

Fighting For a Level Playing Field: The Reality of Elite  
Women's Sports in Today's Modern Era

KARP 001

### Psychology 2

MODERATOR: JOSHUA HART

1:50 / HANNAH R. CRODELLE

Attachment Style, Schizotypy, and Conspiracy Belief:  
A Mediation Process Model

2:10 / JACOB M. DIORIO

An Examination of the Effects of Family Stability on  
Intimate Relationships

2:30 / EMILY F. OLENIK

The relationship between helicopter parenting and risky  
sexual behavior in emerging adults

2:50 / JACKSON G. GIAMMATTEI

The Effect of Religiosity, Partisanship, and Identity-Seeking  
Behavior on Political Engagement

3:10 / ALINA H. WHITESIDE

Psychological Ownership and Insecure Adult Attachment

LIPPMAN 014

### Eating disorders, body image, and weight stigma

MODERATOR: CATHERINE WALKER

1:50 / JULIA WEBSTER

A Body Functionality Approach to Height Dissatisfaction  
in Women

2:10 / NATALIA GARCIA MORENO

Weight stigma among healthcare professionals and its  
effects on misdiagnosis of eating disorders

2:30 / CLARA LACORTE

The Neuropsychological Correlates of Eating Disorders

2:50 / OLIVIA BRAND

How weight and race impact perceptions of anorexia  
nervosa

3:10 / HALLIE R. KATZMAN

Intimate Partner Violence Among College Students:  
Service Utilization and Quality of College Campus Mental  
Health Services



## SESSION IV

1:50 - 3:30 P.M. / CONCURRENT ORAL PRESENTATIONS

LIPPMAN 101

### History 1

MODERATOR: SARINA KUERSTEINER

**1:50 / SOPHIE A. BROWN**

Interrogating Historical Trauma Through the Lens of Black and Indigenous Artists

**2:10 / ARIANA S. ROGOWSKI**

How 20th Century South African Women Viewed the Plausibility of Communist Liberation

**2:30 / LAURYN D. WEST**

To Dress a Woman: The Industrial Revolution, Fashion, and Lady's Magazines

**2:50 / ZOE L. ZMURKO**

"Establishing Class": The Analysis and Establishment of the American Middle Class Through the Evolution of American Dining Etiquette: 1850-1880

**3:10 / GABRIELLA R. BARATIER**

We Need an American Girl Doll Who...Was at the Capitol Crawl

ISEC 120

### Computer Science

MODERATOR: MATTHEW ANDERSON

**1:50 / ZACHARY J. DUBINSKY**

The Wedderburn-Artin Theorem and Fast Matrix Multiplication

**2:10 / DANIELLA L. MASSA**

Improving Human-Robot Interaction: Modifications of a Social Robot on Dimensions of Gender and Personality

**2:30 / JING CHEN**

Fetal Movement Visualizations to Empower Pregnant People

**2:50 / SON H. NGUYEN**

Predicting Future Workload of Cloud Datacenter

**3:10 / FIONA M. SHYNE**

Automatic Playtesting of Dungeons and Dragons Combat Encounters

WOLD 225

### Current Research on Aerogel Materials

MODERATOR: ANN ANDERSON

**1:50 / TINGWEI AO**

Aerogel Windows for Sustainable Building Design

**2:10 / JENNIFER GARCIA**

Phosphorescent Aerogel Based Lighting

**2:30 / ANNA HOFFMAN**

Quantifying the Effects of Aerogels for Their Use in Catalytic Converters

**2:50 / PAULO REYES**

Drag Reduction Through Hydrophobic Aerogel Film

ISEC 124

### Biology

MODERATOR: KATE FELLER

**1:50 / LEONARDO M. FERRISI**

Optimizing an Assistive Brain Computer Interface that uses Auditory Attention

**2:10 / CHRISTOPHER J. RINGER**

The effect of weight gain on locust jumping kinematics and extensor muscle activity (*Schistocerca americana*)

**2:30 / DANA TRUINI**

Gravid grasshoppers produce more energy but jump shorter distances

**2:50 / NATALIE J. PREVEZA**

Contrasting the production and molecular composition of venom from varying species of Belostomatidae

## SESSION IV

1:50 - 3:30 P.M. / CONCURRENT ORAL PRESENTATIONS

ISEC 150

### Chemical Biology

**MODERATOR: KRISTIN FOX**

**1:50 / LUKE MIRANDA**

Mutation of Schizophyllum commune Type Ia Metacaspase for Cleavage Site Identification

**2:10 / MORGAN TRUESDELL**

Identification of calcium binding sites of Schizophyllum commune metacaspases

**2:30 / MORGAN DUFFANY**

Investigating the G-Quadruplex Structure in Precursor MicroRNA

**2:50 / YEONJAE LEE AND KYRA LUM**

Assessing the Stereoselectivity of a Novel Synthesis of Heteroaryl Ketones as Potential *S. commune* Metacaspase Inhibitors

ISEC 118

### Mathematics 2 and Theoretical Physics

**MODERATOR: JEFFREY HATLEY**

**1:50 / DANIEL T. TYEBKHAN**

Elliptic Curves for Prime Factorization of Integers

**2:10 / MAYAH TEPLITSKIY**

Polynomials in  $F_p[x]$  which commute under composition

**2:30 / AIDAN P. MCAULIFFE**

Isoperimetric Inequality

**2:50 / AQEEL AHMED**

Comparing Newtonian Mechanics, Special Relativity and General Relativity for Motion Near a Mass

**3:10 / JULIAN ZAPATA-HALL**

Big Data: Development of Fouling Strategy for College Basketball

WOLD 128

### Environmental Chemistry

**MODERATOR: LAURA MACMANUS-SPENCER**

**1:50 / CAROLINE MONACO**

Sorption of PFAS Chemicals to Organic Material as an Environmental Remediation Strategy

**2:10 / TESSA THOMAS**

Studying the Binding of Hexafluoropropylene Oxide-Dimer Acid to Human Serum Albumin (HSA) in the Presence of Fatty Acids

**2:30 / DANIEL SINGER**

Quantifying the Sediment Sorption of Organic Ultraviolet Filter Chemicals Using Solvophobic Theory

EMERSON  
AUDITORIUM

### Unusual Music: From Lutes to Birds and Jazz

**MODERATORS: DIANNE MCMULLEN / TIM OLSEN**

**1:50 / GRACE I. CANEPARI**

Do Birds Really Sing?: A Debate Among Scientists and Musicians

**2:10 / CORBIN T. VELONIS**

Renaissance Lute Music Reborn

**2:30 / ASPEN MORRIS**

Jazz Arrangements of Six Pieces from the "Cowboy Bebop" Soundtrack



## SESSION V

3:40 - 5:20 P.M. / CONCURRENT ORAL PRESENTATIONS

KARP 105

### Social and Health Challenges of College-Age Students

**MODERATOR: DAVE COTTER**

**3:40 / KARSON M. SAUNDERS**

Addressing the Limitations of the Medical Model: An Examination of Stigma, Challenges and Social Support for College-Age Women Living with Type One Diabetes

**4:00 / LILY R. WALKER MONEY**

Exploring Intimate Partner Violence Among 18-24-year-olds During COVID-19: A Clinical Perspective

**4:20 / ZOË E. FLESSAS-FINOCCHIE**

Why are BIPOC students not Involved in Greek Life at Union?

**4:40 / ALEXIS H. HENRIKSON**

Invisible Disabilities: Self and Understanding in Higher Education

KARP 002

### Political Science 2

**MODERATOR: TOMAS DVORAK**

**3:40 / MICHAEL E. ROSENBAUM**

Liberty through the looking-glass: Comparative democratic backsliding in response to the French Revolution (1789-1806)

**4:00 / HARRISON M. BERGER**

Evaluating the Rise of Multipolarity

**4:40 / AVA C. DIEDEN**

No More Deaths: rights based humanitarianism on the US-Mexico border

**4:40 / BENJAMIN BIRNBACH**

In Search of a More Comprehensive Joint Comprehensive Plan of Action (JCPOA): The wider implications of dealing with the Islamic Republic of Iran.

LIPPMAN 101

### History 2

**MODERATOR: JOYCE MADANCY**

**3:40 / GRANT DEBOER**

Propaganda for Peace: Edward Bernays and Public Relations' Purpose in Modern Society

**4:00 / LILY P. WAINWRIGHT**

U.S. Presidential Advertising Campaigns: An Analysis of the Implementation and Efficacy of Fear

**4:20 / SEBASTIAN G. KANIA**

Literature and History: Honoré de Balzac, His Writings, and Nineteenth-Century France

**4:40 / MATTHEW D. GIARRATANA**

The Democratization of American Historical Societies: From Gentleman Scholars to Girlbosses and Beyond

LIPPMAN 012

### Developmental Psychology

**MODERATOR: LINDA STANHOPE**

**3:40 / LINDSEY MCDONALD**

Children's Exposure to Interparental Conflict Predicts the Quality of their Friendships in College

**4:00 / ISABEL RIPSAM-WALSH**

Relationships Among Attachment Style, Hook-up Attitudes and Mental Health

**4:20 / NATALIE GIORDANO**

The Association Between Parenting Style and Birth Order as Explored in College Students

**4:40 / CARLY MATTICE**

Special Education Teacher Stress and Upholding the Individuals with Disabilities Education Act for Students with Autism

# SESSION V

3:40 - 5:20 P.M. / CONCURRENT ORAL PRESENTATIONS

WORLD 225

## Mechanical Engineering 2

MODERATOR: JARON KUPPERS

**3:40 / LEONARDO J. GAGLIARDI**

Canopy Shear Layer Perturbation by Localized Height Heterogeneity

**4:00 / DANIEL R. CHOATE**

Steering System for the Union College SAE Baja Team

**4:20 / EMILY L. ABRUZZESE**

Development and Testing of a Clean Cookstove Testbed

**4:40 / NATALIE J. SHEARING**

Liebau Pumping in Embryonic Hearts: A RIM-PIV Study of Liebau Impedance Pumping in an Embryonic Heart Model



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# STEINMETZ DANCE PERFORMANCE

FRIDAY, MAY 12 / 4:00 P.M. / NOTT MEMORIAL

## The 2023 Lothridge Festival of Dance

FACULTY SPONSORS / MEGAN FLYNN & LAURIE ZABELE CAWLEY

### Star-Crossed Lovers

**CHOREOGRAPHY:** EVA CROWLEY

**MUSIC BY HARRY STYLES:** "KEEP DRIVING"

**Dancers:** Jordan An, Grace Newcombe

### Presence

**CHOREOGRAPHY:** EMILY ARMLIN

**MUSIC BY SLEEPING AT LAST:** "TASTE"

**Dancers:** Emily Armlin, Hannah Kimball, Grace Levins, and Abby Wilder

### Union College Steinmetz Spectacular

**CHOREOGRAPHY:** JULIANA LISI

**MUSIC BY THE WEEKEND:** "BLINDING LIGHTS"

**Dancers:** Rachel Bryan, Sarah Dames, Caitlin LeSage, Juliana Lisi, Haylee Snow, Sage Stinson

### Bhangra Union Spring 2023

**CHOREOGRAPHY :** TRISHA AGRAWAL,  
NISHTHA AGARWAL, VAISHALI SRINIVASAN

**MUSIC BY MANAK-E, AYO AND TEO, DILJEET DOSANJ,  
HARRDY SANDHU:** "JHERI KUDI," "ROLEX," "GOAT,"  
"BIJLEE BIJLEE"

**Dancers:** Armaan Uppal, Aryan Mayor, Ashlesha Bhagat, Atharv Tekurkar, Grace Tang, Juhi Bhuwalka, Karmen Gill, Maryam Tariq, Mayur Pabba, Naina Sabbineni, Nathan Ramachandran, Nishtha Agarwal, Priya Patel, Shivani Modi, Shriya Balaji, Sniggi Narayandas, Sree Manga, Sriya Baru, Trisha Ajrawal, Trisha Panse, Vaishali Srinivasan, Vishaal Nayagam

### Kpop Spring 2023 Chorus Mashup

**CHOREOGRAPHY:** SHRIYA BALAJI

**MUSIC BY NCT 127, ENHYPHEN, NEW JEANS,  
BLACKPINK, BTS:** "KICK IT," "FEVER," "HYPE BOY,"  
"SHUT DOWN," "MIC DROP"

**Dancers:** Nishtha Agarwal, Shriya Balaji, Ashlesha Bhagat, Mahek Desai, Maddie Donahue, Aydana Djoroeva, Pheary Kang, Chiharu Mamiya, Lexis McCabe, Vaishali Srinivasan

### Vibes

**CHOREOGRAPHY:** AIDA GIRMA & ISHIKA CHOURASIA

**MUSIC BY A COLLECTION OF AFROBEATS AND  
AFRO-INSPIREDMUSIC**

**Dancers:** Dulce Barrios, Ishika Chourasia, Chris Delances, Aida Girma, Deja Jenkins, Jocelyn Poste, Jennifer Mendez

### XV: Le Diabre

**CHOREOGRAPHY:** EVA CROWLEY

**MUSIC BY DJO:** "MORTAL PROJECTIONS"

**Dancers:** Melanie De La Cruz, Livi Gwinnett, Grace Newcombe, Armada Noël, Isabella Russell, Haylee Snow, Zoe Watson, Abby Wilder

### MOVE!

**CHOREOGRAPHY:** EVA CROWLEY

**MUSIC BY JON BATISTE:** "I NEED YOU"

**Dancers:** Eva Crowley, Adriana Lawton, Julianna Lisi, Grace Newcombe, Abby Wilder

### As You Walk

**CHOREOGRAPHY:** CAITLIN LESAGE AND ZOE WATSON

**MUSIC BY MUMFORD AND SONS:** "THE CAVES"

**Dancers:** Caitlin LeSage, Zoe Watson

### Union College Dance Team

**CHOREOGRAPHY:** ABBY RESNIC AND ZOE WATSON

**MUSIC BY CHRISTINA AGUILERA, PITBULL,  
JOHN MARTIN, SWEDISH HOUSE MAFIA, GALANTIS:**  
"FEEL THIS MOMENT," "DON'T YOU WORRY CHILD,"  
"RUNAWAY (U&I)"

**Dancers:** Maya Acampora, Faith Burroughs, Maia Carty, Sarah Dames, Hannah Kimball, Caitlin LeSage, Alexandra Nicolaus, Abby Resnic, Isabella Russell, Lydia Singer, Anabel Sollinger, Zoe Watson and Anna Zusi





## Love, Your Seniors

**CHOREOGRAPHY:** THE UNION DANCE SENIORS

**MUSIC BY BEN RECTOR:** "BRAND NEW"

**Dancers:** Quoc (Jordan) An, Emily Armlin, Julianna Lisi, Armanda Noël, Abby Resnic, Isabella Russell, Haylee Snow, Zoe Watson

## Locked In

**CHOREOGRAPHY:** KEERTHI KONDA & JANET FABODE

**MUSIC BY USHER, LIL JON & LUDACRIS, BEYONCÉ, JAY-Z, CHRIS BROWN, FIVIO FOREIGN, LIL UZI VERT:** "YEAH!," "UPGRADE UNION," "C.A.B. (CATCH A BODY)," "JUST WANNA ROCK"

**Dancers:** Nishtha Agarwal, Emily Armlin, Samhita Bheemireddy, Rachel Bryan, Alice Cheng, Ishika Chourasia, Bassem Darwish, Bailey DeCocco, Mahek Desai, Janet Fabode, Karmen Gil, Paige Kent, Keerthi Konda, Anna Langer, Julianna Lisi, Haley Martuscello, Nathan Ramachandran, Jillian Ramey, Dylan Robichaud, Isabella Russell, Vaishali Srinivasan, Zayna Shaikh, Sarah Wright, Sheena Wolliston, Fiona Xu

## A Night in Sevilla

**CHOREOGRAPHY:** OMONIKE AKINYEMI

**Dancers:** *Students in ADA-054 Special topics:* Flamenco. Rachel Bryan, Laura Kaso, Athanasia Kytoudi, Chiharu Mamiya, Nguyen Nguyen, Mircy Micheidy Coca Soriano, Riley Spagnuolo, Efu Takahasi, Caitlin Williams

## Así se Baila—LatinX

**CHOREOGRAPHY:** MIRIAM ROJO GUTIERREZ & KIM FALCON

**MUSIC BY ZACARIAS FERREIRA, AFRICANDO, DADDY YANKEE, LIL JON, EL ALFA, CHAEL PRODUCIENDO, MC DG AND MC GUSTTA:** "LA ASESINA," "BETECE," "BOMBOM," "GOGO DANCE," "ABUSADAMENTE"

**Dancers:** Dulce Barrios, Vivian Escobar, Miriam Rojo Gutierrez, Jayce Jasso, Esther Lee, Veronica Lopez, Jennifer Mendez, Edgar Pastran, Jocelyn Poste, Merari Rios, Victor Saeteros Coca Soriano, Riley Spagnuolo, Efu Takahasi, Caitlin Williams

## The Dance Program would like to thank:

### OUR SPONSORS

Mrs. Joan and Mr. David L. Henle '75  
William E. and Anna S. Lothridge 1879 Fund  
Charles D. Lothridge '44 / Edward Vilella Fellowship  
Dr. Gus L. Davis '59 and Susan Davis /  
The Stephanie C. Davis Dance Residency  
The Gail and Carl George Annual Fund

### FACULTY AND COLLABORATORS

Megan Flynn / Gustave L. Davis '59 and Susan S. Davis  
Director of Dance  
Laurie Zabele Cawley / Assistant Director  
Omonike Akinyemi / Adjunct Faculty  
Drew Bodd / Technical Director  
Brittney Belz / Costume Coordinator  
Robin MacDuffie / Scene Shop Foreman  
Victoria Rotondi and Charlie Jones / Arts Administrators  
Mel De La Cruz, Isabella Russell and Armanda Noël /  
Work Studies

### DIRECTOR'S NOTE

It is with great pleasure to see the Lothridge Dance Festival return to the Nott this year! We are thrilled to highlight the student performers and choreographers from across our community—including choreographic research from dance minors, as well as students enrolled in our dance practicums, and performers who are active leaders in the various dance clubs, teams, and organizations on campus. In my first year as the *Gustave L. Davis '59 and Susan S. Davis Director of Dance/ Artist-in-Residence*, I would like to extend my gratitude to Laurie Zabele Cawley, assistant director of dance, for her work in organizing the involvement of the student performers in this year's Steinmetz performance. We hope you enjoy this celebration of Dance at Union! —Megan Flynn

# STEINMETZ CONCERT 2023

FRIDAY, MAY 12 / 8:00 P.M. / EMERSON AUDITORIUM IN THE TAYLOR MUSIC CENTER

## Union College Jazz Ensemble

DIRECTOR: PROFESSOR TIM OLSEN

### SAXOPHONE

Grace Canepari '25  
Peter D'Agata '25  
Ethan Lampert '22  
Aspen Morris '25  
Kavi Mathur '26  
Jack Oats '26

### TRUMPET

Lynn Davis  
Hannah Ingber '26  
Tessa Klimowicz '26  
Ian Petrat '25  
Bob Relyea  
Tyler Weissinger '25

### TROMBONE

Oliver D'Anna '26  
Art Duncan  
Deana Patterson '23  
Erik Roberts '26  
Tim Welch '23

### PIANO

Chloe Bui '24  
Ryder Mollo '26

### GUITAR

Aarón Carretero Benites '25  
Minh Vu Le '23

### BASS

Owen Santora '26  
Leo Weisberger '26

### DRUMSET

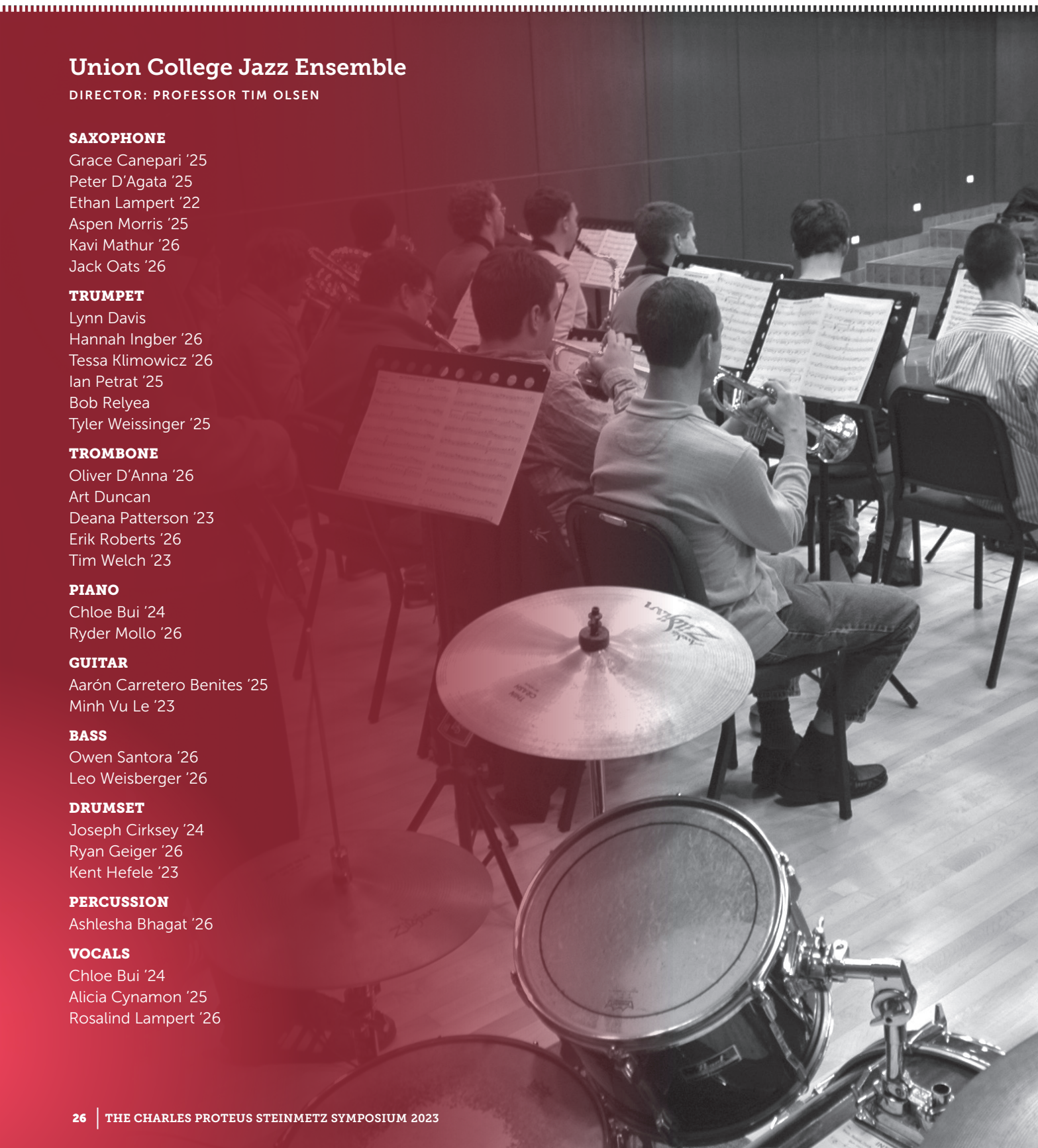
Joseph Cirksey '24  
Ryan Geiger '26  
Kent Hefele '23

### PERCUSSION

Ashlesha Bhagat '26

### VOCALS

Chloe Bui '24  
Alicia Cynamon '25  
Rosalind Lampert '26



# NOTES

A large white rectangular area with rounded corners, filled with horizontal lines for writing notes. The lines are evenly spaced and extend across the width of the page.

