

COLUMBIA UNIVERSITY
GRADUATE SCHOOL OF ARTS AND SCIENCES
PHD CONVOCATION 2025

ACADEMIC PROCESSION

Doctoral candidates
Faculty of the Graduate School of Arts and Sciences
Saint-Saëns: Symphony No. 3 “Organ”

OPENING REMARKS

Carlos J. Alonso, Dean
Graduate School of Arts and Sciences
Vice President for Graduate Education
Morris A. and Alma Schapiro Professor in the Humanities

KEYNOTE ADDRESS

Rubén L. Gonzalez Jr.
Dean of Science and Professor of Chemistry

PRESENTATION OF THE DOCTORAL CANDIDATES

FINAL REMARKS AND RECESSIONAL

Dean Alonso

MUSIC

Performance by the band Freelance

The following pages include graduates who received the doctoral degree in October 2024 and February 2025, as well as candidates for the May 2025 degree conferral.

ANTHROPOLOGY

M Constantine

Slavs and Tatars: Semiotics of collective practice

Advisor: Elizabeth Povinelli

Nile Davies

Properties, futures: Landscapes of reconstruction in Sierra Leone

Advisors: Rosalind Morris and David Scott

Margaux Fitoussi

Minor differences: A study of Jewishness and Jewish-Muslim relations in Tunisia

Advisor: Nadia Abu El-Haj

ART HISTORY AND ARCHAEOLOGY

Nicholas Croggon

The alternative video network: Recovering video's utopian moment

Advisor: Branden Joseph

Rachel Hutcheson

Natural color photography, 1890-1920:

Technology, gender, colonialism

Advisor: Noam Elcott

Hae Yeun Kim

Unkoku Tōgan (1547-1618): Art and patronage in early modern Western Japan

Advisor: Matthew McKelway

Naomi Kuromiya

The collapse of past and present: Tracing "integrated art" in modern Japan

Advisor: Jonathan Reynolds

Janina Marshall

Who speaks: Ericka Beckman's super-8 trilogy

Advisor: Branden Joseph

Mateusz Mayer

Albrecht Dürer and the moralizing portrait of the Renaissance merchant

Advisor: Diane Bodart

Diana Mellon

Landscape and identity in Naples and the Campi Flegrei

Advisor: David Freedberg

Alyssa James

Cultivating the future: Heritage, identity, and the revival of coffee production in Martinique

Advisors: David Scott and Paige West

Dakota Straub

Philanthro-tourism: Yachting, science, and the new explorers

Advisor: Paige West

Sophia Merkin

Co-collecting tapa: Redefining Robert Louis Stevenson's collection of barkcloth in Samoa and beyond, 1888-1894

Advisor: Zoë Strother

Sehyun Oh

Adaptive beings: Japanese American art and environment, 1923-1943

Advisor: Jonathan Reynolds

Oluremi Onabanjo

Seeing Bahia: On the limits of photographic representation in Black Brazil, 1835-1977

Advisor: Zoë Strother

Gwen Unger

Other selves: Critical self-portraiture in Cuba during the "Special Period in the Time of Peace," 1991-1999

Advisor: Alexander Alberro

Joseph Woldman

Look at me: Faces and gazes in Etruria in the sixth century BCE

Advisor: Francesco de Angelis

Valerie Zinner

Illustrated legends of the two masters: Sumiyoshi Gukei's early modern engi emaki

Advisor: Matthew McKelway

Aleksa Zivkovic

Ambient empire: Ecologies, colonies, and nature vivante in modern Paris, 1860-1940

Advisor: Noam Elcott

ASTRONOMY

Jorge Cortés

Global kinetic modeling of the intrabinary shock in spider pulsars

Advisor: Lorenzo Sironi

Doyeon Kim

Bridging gaseous media across scales and phases

Advisor: Mary Putman

BIOLOGICAL SCIENCES

Ma. Fatima Carla Bertulfo

Genome-wide CRISPR screens for identification of therapeutic targets in hematological malignancies

Advisor: Teresa Palomero and Adolfo Ferrando

Justin Burdge

Remote automated delivery of mechanical stimuli coupled to brain recordings in behaving mice

Advisor: Ishmail Abdus-Saboor

Kelly Eckart

*Light affects metabolism in *Pseudomonas aeruginosa* biofilms*

Advisor: Lars Dietrich

Yimeng Fang

Coordination of histone chaperones for parental histone segregation and epigenetic inheritance

Advisor: Songtao Jia

Lindsey Florek

*Mechanisms and consequences of lactate- and glycolate-driven physiology in *Pseudomonas aeruginosa**

Advisor: Lars Dietrich

Riley Gentry

Investigating the role of eIF4F during translation initiation

Advisor: Ruben Gonzalez

Jiacheng Gu

Mapping multimodal phenotypes to perturbations in cells and tissue with CRISPRmap

Advisor: Jellert Gaubomme

Zhenhao Guo

*Genes needed for benomyl resistance and hypersensitivity in *Caenorhabditis elegans**

Advisor: Martin Chalfie

Burcu Gulez

*Decoding neuronal fate specification in the pharynx of *Caenorhabditis elegans**

Advisor: Oliver Hobert

Navin Sridhar

Electromagnetic and multimessenger signals from magnetized outflows of compact object binaries

Advisors: Lorenzo Sironi and Brian Metzger

Rahim Hashim

Representation of mental states in the primate brain

Advisor: C. Daniel Salzman

Nicholas Ide

Investigating the contributions of eIF3 subunits to translation initiation

Advisor: Ruben Gonzalez

Jee Hun Kim

*Regulation of HLH-2 in the *C. elegans* proximal somatic gonad*

Advisor: Iva Greenwald

Aaron Limoges

Regulation of threat responses by dynorphin in the ventromedial prefrontal cortex

Advisor: Hugo Tejada

Natalie McArthur

The molecular basis of solid-phase separation in olfactory transcriptional hubs

Advisor: Stavros Lomvardas

Rachel Misner

*Signals influencing the development of adult follicle stem cells and their niche cells in the pupal *Drosophila* ovary*

Advisor: Daniel Kalderon

Sunjae Park

Structural Studies of TRPML channels

Advisor: Jian Yang

Tyler Perdue

Combating gut pathogens by precise virulence inactivation using a CRISPR-associated transposase

Advisor: Harris Wang

Alison Ross

Mass spectrometry-based methods for the quantification of ex- and in-vivo proteome turnover in murine models

Advisor: Marko Jovanovic

Ryan Schwark

*Behavioral fingerprinting of the naked mole-rat (*Heterocephalus glaber*)*

Advisor: Ishmail Abdus-Saboor

Talal Syed

Patient derived organoids as a platform for assessing therapy response and characterizing epithelial plasticity in bladder cancer

Advisor: Michael Shen

Rebecca Stecky

The nose knows: Understanding the molecular underpinnings of learning and adaptation through the main olfactory epithelium

Advisors: Bianca Marlin and Stavros Lomvardas

CHEMICAL PHYSICS

Sylvia Bintrim

The GW approximation and Bethe-Salpeter equation for molecules and extended systems

Advisor: Timothy Berkelbach

CHEMISTRY

Si Tong Bao

Dynamic chirality in perylene diimide nanoribbons

Advisor: Colin Nuckolls

Logan Beck

Development of photochemical synthetic methods with a focus on low energy light

Advisor: Tomislav Rovis

David Cabanero

Applications of red-light photoredox catalysis: From polymer chemistry to proximity labeling

Advisor: Tomislav Rovis

Cassandra Chartier

Regulation of tyrosine phosphatases through protein-protein interactions

Advisor: Neel Shah

Shan-Wen Cheng

Enhancement of energy carrier transport by coherent phonons in van der Waals semiconductors

Advisor: Xiaoyang Zhu

Julia Dorsheimer

Deaminative functionalizations of primary amines enabled by photoredox catalysis

Advisor: Tomislav Rovis

Lauren Tang

Mass spectrometry-based proteomics as a tool to elucidate global changes in pancreatic ductal adenocarcinoma

Advisor: Marko Jovanovic

Pavel Vlasov

Enhancer RNAs: A source of novel, rapidly evolving proteins

Advisor: James Manley

Xavier Westergaard

Development and characterization of novel optical tools to study serotonin in living brain tissue

Advisor: David Sulzer

Petra Shih

Anharmonicity and electron-phonon interactions in periodic systems

Advisor: Timothy Berkelbach

Jesse Gray

Designing high-performance organic energy storage devices

Advisor: Colin Nuckolls

Sae Young Han

Exploring the magnetic and electronic properties of van der Waals materials

Advisors: Xavier Roy and Colin Nuckolls

Shoushou He

Functional two-dimensional superatomic materials

Advisors: Xavier Roy and Colin Nuckolls

Christie Koay

Frustrated hopping in an air-stable van der Waals metal

Advisor: Xavier Roy

Christopher Lamartina

Rh(III)-catalyzed methodologies applied to the synthesis of unnatural peptides

Advisor: Tomislav Rovis

Woojung Lee

Tuning conductance in single-molecule electronics

Advisor: Laura Kaufman

CHEMISTRY (CONTINUED)

Liang Li

Beyond exponential conductance decay: Highly conducting molecular wires based on one-dimensional topological insulators
Advisors: Latha Venkataraman and Colin Nuckolls

Xinwen Liu

Leveraging infrared imaging with machine learning for phenotypic profiling
Advisor: Wei Min

Yufeng Liu

Photoinduced transfer of spin-polarized charges at semiconductor interfaces
Advisor: Xiaoyang Zhu

Daniel Malinowski

Photophysics at the mesoscale: Macromolecular engineering for multiexcitonic processes
Advisor: Luis Campos

Alec Meacham

Rotations without polarizations: A new approach for quantifying dynamic heterogeneity at the single-molecule level
Advisor: Laura Kaufman

Adriana Mendieta

Development and characterization of fluorescent probes for understanding monoamine neurotransmitter pathways in the brain
Advisor: Dalibor Sames

Taruna Neelakantan

Discovery of unique metabolic features of mammalian cells and tissues
Advisor: Brent Stockwell

CLASSICAL STUDIES

Mary-Evelyn Farrior

Inscribing community: The topography of Greek epigraphy in Rome
Advisor: Francesco de Angelis

CLASSICS

Carina de Klerk

Where's Xanthias?: Visualizing the fifth-century comic male slave
Advisor: Helene Foley

Emma Ianni

When language fails: Tragedy and Thucydides
Advisor: Nancy Worman

Angela Paoletta

Electroluminescence from nanoscale gaps and single-molecule junctions
Advisor: Latha Venkataraman

Claudia Prindle

Applications of charged aromatic species in electronics
Advisors: Latha Venkataraman and Colin Nuckolls

Inis Serrano

Behavioral pharmacology of classical and novel psychedelics: Frameworks for drug development
Advisor: Dalibor Sames

Shantao Sun

Design and synthesis of perylene- and perylene-diimide-based optical and electronic materials
Advisor: Colin Nuckolls

Noah Wagner-Carlberg

Rh(III)-catalyzed alkene amidation reactions: Development and mechanistic studies
Advisor: Tomislav Rovis

Xiye Wang

Electric field and neural network in catalysis: Amine acylation in the scanning tunneling microscope-break junction and oxadiazoliums in Stetter catalysis
Advisor: Tomislav Rovis

Katherine Xie

Development and application of low-energy photoredox catalysis methodologies
Advisor: Tomislav Rovis

Giovanni Lovisetto

Cultures of bondage: Bodily constraint in ancient Greece
Advisor: Ioannis Mylonopoulos

John Izzo

Tironian notes: Literary and historical studies on Marcus Tullius Tiro
Advisor: Katharina Volk

EARTH AND ENVIRONMENTAL SCIENCES

Kailani Acosta

Surface ocean nutrient trends and community diversity in the Northern Gulf of Mexico and beyond
Advisor: Andrew Juhl

Tanner Acquisto

Characterizing incoming plate hydration and overriding plate structure at subduction zones: Implications for plate boundary slip behavior
Advisor: Anne Becel

Rafael Antwerpen

Understanding drivers of ice mass loss in Greenland through sea-level and climate modeling, remote sensing, and machine learning
Advisor: Marco Tedesco

Shanice Bailey

Water mass transformation through the lens of numerical models and observations
Advisor: Ryan Abernathey

Clara Chang

Sediment histories: Early Mesozoic ice and North American Pleistocene-Holocene deglaciation
Advisor: Paul Olsen

Andrew Hollyday

From pole to shoreline: Constraining mantle structure and flow to understand past sea-level change
Advisor: Jacqueline Austermann

Catherine Ivanovich

Characterizing the local, regional, and global drivers of extreme humid heat
Advisors: Radley Horton and Adam Sobel

Joohee Kim

Reconstruction of the North Atlantic Deep Water end-member of the Atlantic Meridional Overturning Circulation through the Pleistocene
Advisor: Steven Goldstein

EAST ASIAN LANGUAGES AND CULTURES

Tenzin Dongchung

Wood carvers and deep forests: The expansion of Tibetan-language woodblock printing houses (1642-1900)
Advisor: Gray Tuttle

Sarah Ludwig

Hierarchical scaling of carbon fluxes in the Arctic using an integrated terrestrial, aquatic, and atmospheric approach
Advisor: Roisin Commance

Lauren Moseley

Optimizing an ocean model to better assess oxygen and carbon cycling in the subpolar North Atlantic
Advisor: Galen McKinley

Rose Oelkers

Disentangling tree growth and climate response of Andean-Amazon forests in Bolivia
Advisors: Rosanne D. D'Arrigo and Laia Andreu Hayles

Celeste Pallone

Multi-proxy Paleooceanographic reconstructions of the late Pleistocene eastern equatorial Pacific
Advisor: Jerry McManus

Kevin Schwarzwald

The present and future of the Horn of Africa rains
Advisor: Richard Seager

Madankui Tao

Observing and modeling spatiotemporal variations in summertime US air pollution and photochemistry
Advisor: Arlene Fiore

Carson Witte

Observations and physical modeling of the near-surface ocean: Fundamental insights into solar heating, diurnal warming, precipitation, and ocean-ice heat flux
Advisor: Christopher Zappa

Jingyi Zhuang

Novel materials simulation techniques to investigate Earth's interior
Advisor: Renata Wentzcovitch

Meng-Heng Lee

Chinese law and Korean practice: Illegal border-crossing and suppressing Catholicism in late Chosŏn Korea (1791-1846)
Advisor: Jungwon Kim

EAST ASIAN LANGUAGES AND CULTURES (CONTINUED)

Yuqing Luo

The descending words: Cult and culture of spirit-writing in China (900–1400)

Advisor: Robert Hymes

Chun Kiang Tan

Blood and empire: The emergence of hemotypology (blood-group studies) in early twentieth-century Japan

Advisor: Gregory Pflugfelder

Siwei Wang

New storm from Latin America: Staging Cuban revolution in socialist China

Advisor: Lydia Liu

Yingchuan Yang

Revolution on the air: Radio and the mass technology of Chinese Socialism

Advisor: Eugenia Lean

Yifan Zhang

Local airs of sensation: Feng Menglong's (1574-1646) mountain songs and the fashionable language of Suzhou

Advisor: Wei Shang

Xinyi Zhao

A national cinema in search of a nation: Media culture, spectatorship, and colonial (after)lives of Manchuria, 1900s-1940s

Advisor: Takuya Tsunoda

ECOLOGY AND EVOLUTIONARY BIOLOGY

Roi Ankori-Karlinsky

Do past winds protect forests from future storms? A multi-scale assessment of chronic wind-exposure and canopy structure impacts on hurricane damage in tropical forests

Advisor: María Uriarte

Savannah Cooley

Forest dynamics and climate change: a multi-scale analysis of structure, degradation, recovery, and greenhouse gas fluxes

Advisor: Duncan Menge

Alexis Earl

Advisor: Individual decision-making and the maintenance of cooperative breeding in superb starlings (Lamprolornis superbus)

Advisor: Dustin Rubenstein

Michael Levin

Conserving power: Considering animal movement around large-scale, ground-mounted photovoltaic solar energy facilities in the United States

Advisor: Ruth DeFries

Jay Schoen

Carnivore movement ecology for conservation prioritization: Synthetic, comparative, and machine-learning approaches to model large carnivore movement in mixed-use landscapes

Advisor: Ruth DeFries

Elissa Sorojsrisom

It's not just a phase: Development, evolutionary history, and consequences of the free-living gametophyte life phase in the life cycles of ferns

Advisors: Deren Eaton and Barbara Ambrose

ECONOMICS

César Barilla

Essays in economic theory of adaptation to a changing environment

Advisors: Yeon-Koo Che and Navin Kartik

Aimé Bierdel

Essays on climate change, real assets markets and the macroeconomy

Advisor: Jennifer La'O

Palaash Bhargava

Connected to one and all: The role of social and family networks in shaping individual outcomes

Advisor: Sandra Black

Zakary Campbell

Three essays in applied microeconomics and behavioral economics

Advisor: Douglas Almond

René Chalom

Essays in empirical industrial organization: Topics in transportation

Advisor: Gautam Gowrisankaran

Paul Connell

Essays in computational law and economics

Advisor: W. Bentley MacLeod

William Matthew Davis

Essays on environmental change and social inequality

Advisors: Suresh Naidu and Jack Willis

Lucas Panico de Lara

Essays in behavioral and experimental economics

Advisor: Mark Dean

Matthew Easton

Essays in urban and spatial economics

Advisor: David Weinstein

Surabhi Ghai

Essays in product creation and substitution

Advisor: Eric Verhoogen

William Grimme

Essays on bandit games and endogenously missing data

Advisors: Pietro Tebaldi and Sebastián Otero

Ruoqing Jiang

Essays on econometric inference with high-dimensional factor models

Advisor: Jushan Bai

Sang Hoon Kong

Essays in regional and international economics

Advisor: David Weinstein

ENGLISH AND COMPARATIVE LITERATURE

Patrick Anson

Literature in action: The uses of reading in the twenty-first century

Advisor: Matthew Hart

Sheila Byers

Swarms: Epistemological encounters in the Early American environment

Advisor: Branka Arsić

Katrina Dzyak

The poetics of endurance: Managing natural variation in the Atlantic World

Advisor: Branka Arsić

Mia Florin-Sefton

The inheritance plot: History, fiction, and forms of negative accumulation, 1924-2024

Advisor: Jack Halberstam

Alec Joyner

Going to pieces: Laughter, women's writing, and the multiple self, 1928-1943

Advisor: Brent Edwards

Jongho Lee

Essays in international macroeconomics and finance

Advisor: Stephanie Schmitt-Grohé

Marina Lemos

Essays on labor and public economics

Advisor: Michael Best

Kosha Modi

Essays in macrofinance

Advisor: José Scheinkman

Victoria Mooers

Essays in political economy and public economics: Information, institutions, and behavior

Advisor: Andrea Prat

Akanksha Vardani

Institutions, recognition, and gender: Essays on development economics

Advisors: Michael Best and Cristian Pop-Eleches

Emilio Zaratiegui

Essays in macroeconomics

Advisor: Martin Uribe

Qianyang Zhang

Essays in cities, environmental amenities, and housing markets

Advisors: David Weinstein and Donald Davis

Christine Klippenstein

Performing proximities: Atypical neighbourship on the early modern English stage

Advisor: Jean Howard

Nicholas Mayer

Conjuring resistance to oppression: Inscrutability, religious excess, and enigma in Herman Melville's Benito Cereno and Martin R. Delany's Blake

Advisor: Branka Arsić

Andrea Penman-Lomeli

Desiring debt: The production of subjectivity in contemporary Latinx and Latin American literature

Advisor: Joseph R Slaughter

Tyler Grand Pre

The infrastructure of allegory: Figurations of housing in African diasporic literature and culture

Advisor: Brent Edwards

ENGLISH AND COMPARATIVE LITERATURE (CONTINUED)

Lilith Todd

Care work: Nursing and writing, 1650-1800
Advisor: Dustin Stewart

FRENCH

Nadrah Mohammed

Narrative bonds: Female friendship, affect, and politics in novels by twentieth-century Francophone women writers
Advisor: Madeleine Dobie

GERMANIC LANGUAGES

Christopher Hoffman

Practice and form in Rilke, Kafka, and Walser
Advisor: Oliver Simons

Varol Kahveci

(Un)homely encounters: The poetics and politics of Heimat between nineteenth-century Orientalism and contemporary literatures of migration
Advisor: Claudia Breger

HISTORY

Amnah Almukhtar

Anticolonial thought in Iraq in the journals al-'Irfaan, al-'Ilm, and al-Yaqin, 1909-1925
Advisor: Marwa Elshakry

Jessica Cohen

A better life for us all?: A social history of the family planning movement in Accra, 1957-2000s
Advisor: Abosede George

Robert Corban

Bitter harvest: The militarization of agriculture in Mussolini's Italy, 1915-1945
Advisor: Victoria De Grazia

Roslyn Dubler

Discrimination: Family care and the transformation of the welfare state in the European community, 1957-1992
Advisor: Susan Pedersen

Amanda Faulkner

"A place of beginning along the land": Migration and community in the Dutch Atlantic world, 1609-1715
Advisor: Pamela Smith

Alex Valin

Low fidelity: Sound technology, aesthetics, and ideology in late twentieth-century African American and Black diasporic literature
Advisor: Farah Griffin

Andre Pettman

All things commune: The communal imaginary in twenty-first-century French fiction and poetry
Advisor: Aubrey Gabel

Nathaniel Wagner

Futurity after the end of history: Chronotopes of contemporary German literature, film, and music
Advisor: Claudia Breger

Eric Frith

Against the empire of theory: Mexico and the language of political economy in the age of Alamán (1790-1853)
Advisor: Pablo Piccato

Jennifer Goetz

Developing Soviet photography: From military mobilization to family photo albums, 1934-1956
Advisor: Catherine Evtuhov

Luis Andrei Guadarrama Domínguez

Circuits of power: Economic elites and the politics of development in Mexico City, 1870s-1960s
Advisor: Pablo Piccato

Emily Hawk

The movements of Black modern dance: Choreography, education, and community engagement, 1960-1976
Advisor: Casey Blake

Seth Kamil

The inter-colonial provisioning of Barbados from New York and New Jersey, 1650-1765
Advisor: Christopher Brown

Nada Khalifa

The politics of self-determination in Egypt and Bilād al-Shām: A regional history, 1908-1923
Advisors: Marwa Elshakry and Rashid Khalidi

Lynton Lees

Democracy's children: Education, citizenship and social change in Britain and the empire, c. 1902-1955
Advisor: Susan Pedersen

Isobel Plowright

The International Workingmen's Association in the United States, 1865-1876
Advisor: Stephanie McCurry

Stephanie Rivadeneira

The Confraternity of Our Lady of Los Remedios: Piety, politics, and capital in Mexico City
Advisor: Caterina Pizzigoni

Sohee Ryuk

Unraveling the Soviet carpet: Handicraft carpets as commodity, craft, and heritage, 1890-1982.
Advisor: Catherine Evtuhov

ITALIAN

Claudia Antonini

Machiavelli poeta: Politics, love, and laughter in Renaissance Florence
Advisor: Jo Ann Cavallo

Anna Borgarello

Bifocal narratives. The self and the other in contemporary Italian, French, British, and North American Literature
Advisor: Elizabeth Leake

Charles Firestone East

Identity across the scale of being: Puzzles and problems of synchronic and diachronic identity in Dante's corpus
Advisor: Teodolinda Barolini

LATIN AMERICAN AND IBERIAN CULTURE

Elvira Blanco

Imaginaries of the common in contemporary Venezuela (2010-2024)
Advisor: Bruno Bosteels

Rohan Shah

Reluctant globalists: The political economy of "Interdependence" from Nixon's new economic policy to Reagan's hidden industrial policy
Advisors: Kimberly Phillips-Fein and Anders Stephanson

Gabriel Solís

Entangled assembly: A history of the global factory in Taiwan and the US-Mexico Border, 1960-1993
Advisor: Frank Guridy

Reut Ullman

From the workshop to Lomonosov's laboratory: Chymical knowledge in early modern Russia (1500-1800)
Advisor: Pamela Smith

Jordan Villegas-Verrone

Pochitas: Mexican-American girlhood in Depression-era Texas
Advisor: Karl Jacoby

Beatrice Mazzi

Becoming a witness: Impegno and testimony in contemporary Italian literature and culture
Advisors: Elizabeth Leake and Marianne Hirsch

Angelica Modabber

Holy calculus: Early modern mathematics and religion in Guarino Guarini's writings and architecture
Advisor: Jo Ann Cavallo

MATHEMATICS

Kuan-Wen Chen

On the Hodge structures of global smoothings of normal crossing varieties
Advisor: Robert Friedman

Hung Chiang

A higher Hida cuspidal Siegel Eisenstein family for GS_4
Advisor: Eric Urban

Hindy Drillick

Hydrodynamic limits and fluctuations for interacting particle systems
Advisor: Ivan Corwin

Ryuichi Haney

Open enumerative mirror symmetry for lines in the mirror quintic
Advisor: Mohammed Abouzaid

Zoe Himwich

Integrability and noise sensitivity in the KPZ universality class
Advisor: Ivan Corwin

Caleb Ji

Convolution monodromy groups of tori and the Shafarevich conjecture
Advisor: William Sawin

Davis Lazowski

LMN maps in equivariant K-theory and applications
Advisor: Andrei Okounkov

Taeseok Lee

On curvature estimate on extended Kähler-Ricci flow
Advisor: Duong Phong

Patrick Lei

Gromov-Witten theory of smooth Calabi-Yau hypersurfaces in weighted P^4
Advisor: Chiu-Chu Liu

David Marcell

Mathematics p-adic L-functions for P-ordinary Hida families on unitary groups
Advisor: Michael Harris

Roy Magen

Geometric criterion for 6-functor formalisms: Betti realization, gluing, and the motivic homotopy theory of complex analytic stacks
Advisor: Andrew Blumberg

Morena Porzio

The arithmetic of del Pezzo surfaces and Hilbert schemes of points
Advisor: Aise Johan de Jong

Alvaro Martinez Ruiz

SL_2 -Plethysms and Cartan categorification
Advisor: Mikhail Khovanov

Emily Saunders

Persistent homology of zigzag families of filtrations
Advisor: Andrew Blumberg

Jingbo Wan

Nonlinear stability of Reissner-Nordström blackhole spacetimes: The positive-spin nonlinear Regge-Wheeler system
Advisors: Mu-Tao Wang and Elena Giorgi

Alex Xu

The Seiberg-Witten equations and asymptotically hyperbolic Einstein metrics
Advisor: Francesco Lin

Chuwen Wang

On the method of auxiliary Monge-Ampère equations in complex geometry
Advisor: Duong Phong

Chaim Avram Zeff

Toward generic modularity of higher theta series over global function fields and p-adic local fields
Advisor: Chao Li

Baiqing Zhu

The modularity of arithmetic generating series of special cycles on $X_0(N)$
Advisor: Chao Li

MIDDLE EASTERN, SOUTH ASIAN, AND AFRICAN STUDIES

Bandar Alsaeed

Whose divers? Pearling, British imperialism, and the making of the foreigner in the Gulf, c. 1800-1932
Advisor: Joseph Massad

Erik Blackthorne-O'Barr

Persian letters: Language, politics and desire in the late Ottoman Empire
Advisor: Hamid Dabashi

Sourav Chatterjee

Printed bodies: Gender politics of imagetexts in colonial India, 1874-1945
Advisor: Sudipta Kaviraj

Alaa El-Shafei

Colonial carcerality: Egyptian prisons under British rule
Advisor: Timothy Mitchell

Jared Sacks

Architects of revolution? A strategic analysis of South African leftist NGOs in the struggle for a better world
Advisors: Timothy Mitchell and Paige West

Aviroop Sengupta

Configurations of life: The pursuit and practice of 'Indian' biology, 1876-1964
Advisor: Partha Chatterjee

Niyati Shenoy

The body on the threshold: Histories of rape in colonial North India
Advisor: Anupama Rao

Fatima-Ezzahrae Touilila

Colonizing Islam: Imaginaries of religion and sovereignty in North Africa
Advisors: Emmanuelle Saada and Gil Anidjar

MUSIC

Lauren Bernard

Chaotic Blackness, Black gesture, and Black posthumanism in Afrofuturist music
Advisor: George Lewis

Hicham Chami

Jebli music culture: Soundings from a Moroccan periphery
Advisors: Alessandra Ciucci and Aaron Fox

Jesse Chevan

Trombone shout: Instrumental voices in the United House of Prayer for All People
Advisor: Christopher Washburne

Gabrielle Ferrari

Gothic disembodiment, supernatural voices: Gender, voice, and performed disembodiment in music and media
Advisor: Ellie Hisama

MUSIC COMPOSITION (DMA)

Nina Fukuoka

Horror as multimedia genre
Advisor: George Lewis

Uri Kochavi

The mechanisms of instrumental expansion: Musical instruments and their gravitational fields
Advisor: Georg Haas

Anna-Louise Walton

Defamiliarizing the voice: Approaches to vocal composition in the music of Anna Korsun, Charmaine Lee, and Anna-Louise Walton
Advisor: Zosha Di Castrì

PHILOSOPHY

Martina Botti

Parthood without mereology

Advisor: Achille Varzi

Anthony Garruzzo

The problem of organization: A study of Michel

Foucault's conception of systemic power

Advisors: Taylor Carman and Frederick

Neuhouser

PHYSICS

Colin Adams

Faint signatures in large archival datasets:

Searching for exotic particles, events, and sources with VERITAS

Advisor: Reshmi Mukherjee

Bhavya Bandaru

Quantum de Sitter entropy and sphere partition functions: A-hypergeometric approach to all-loop order

Advisor: Frederik Denef

Elena Busch

Semi-supervised learning for semi-visible jets: A search for dark matter jets at the LHC with the

ATLAS Detector

Advisors: P. Michael Tuts and John Parsons

Guanqun Ge

MicroBooNE investigations on the photon interpretation of the MiniBooNE low energy excess

Advisor: Georgia Karagiorgi

Benjamin Gilbert

Photoproduction processes as a probe of the strong nuclear force in relativistic heavy ion collisions at the LHC

Advisor: Brian Cole

Manvir Grewal

Thermodynamic traces of de Sitter quantum gravity

Advisor: Frederik Denef

Ioanna Kourkoulou

Spontaneous breaking of Lorentz symmetry as a bridge between high energy and condensed matter physics

Advisor: Alberto Nicolis

Ethan Jacobs

Rational belief as moral orientation and the conditions for hope in Kant's practical philosophy

Advisor: Frederick Neuhouser

Luke Krauth

Electromagnetic emission from compact

black hole binaries

Advisor: Zoltan Haiman

Aleksandra Kusiak

Probing the ionized gas in distant galaxies with

the Sunyaev-Zel'dovich effect

Advisor: James Hill

Matija Medvidović

Neural-network compression methods for computational quantum many-body physics

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Advisors: Reshmi Mukherjee and Charles Hailey

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POLITICAL SCIENCE

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Vera Senina

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Berenike Firestone

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Casey Bradshaw

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Collin Cademartori

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Joseph Suk

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Jiajin Sun

Semiparametric modeling and analysis for time-varying network data

Advisor: Zhiliang Ying

Abhishek Tilva

Portfolio theory in markets with randomly fluctuating dimension and composition

Advisor: Ioannis Karatzas

Gan Yuan

Topics on machine learning under imperfect supervision

Advisors: Samory Kpotufe and Tian Zheng

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Questions about the program should be sent to:
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