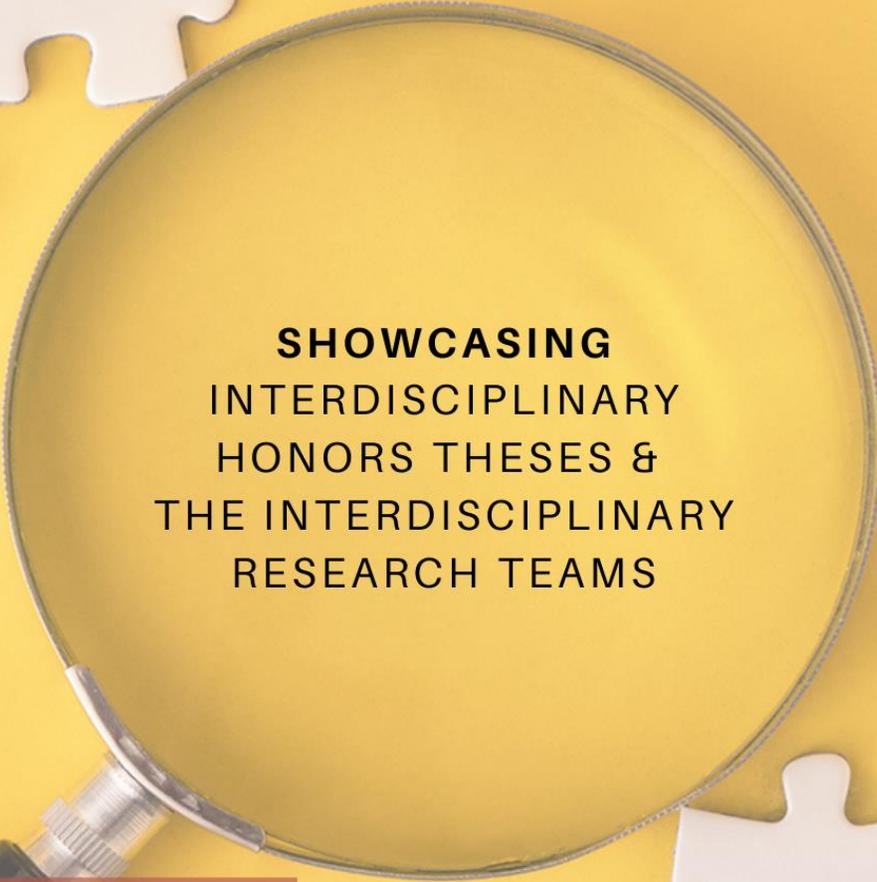


# SCHOOL OF ARTS AND SCIENCES INTERDISCIPLINARY RESEARCH CONFERENCE



**SHOWCASING  
INTERDISCIPLINARY  
HONORS THESES &  
THE INTERDISCIPLINARY  
RESEARCH TEAMS**

**APRIL 22, 2022**

**10:30AM - 3:00 PM**

**LIVINGSTON STUDENT CENTER  
RUTGERS- NEW BRUNSWICK**

**RUTGERS**

School of Arts and Sciences  
Honors Program

For more information, contact  
[honors@sas.rutgers.edu](mailto:honors@sas.rutgers.edu)

**School of Arts and Sciences**  
**Interdisciplinary Research Conference**  
Friday, April 22, 2022 | Livingston Student Center

**COFFEE & REGISTRATION**

**9:30 am – 10:30 am**  
LSC Gathering Lounge

**MORNING SESSION**

**10:30 am – 12:00 pm**  
Interdisciplinary Honors Theses: Panel A | LSC 202

**LUNCH BREAK**

**12:00 pm – 1:00 pm**  
LSC Gathering Lounge

**AFTERNOON SESSIONS**

**1:00 pm – 3:00 pm**  
Interdisciplinary Honors Theses: Panel B | LSC 202  
Interdisciplinary Research Teams | LSC Collaborative Learning Center

**Interdisciplinary Honors Theses  
(Panel A)**

10:30 am – 12:00 pm

**Panel A: Science & Technology** | Chair: Kathleen Sadowsky, Assistant Dean,  
SAS Honors Program

Joshua Gole, *Developing a Database of Taxonomized Microaggressions with Contextual Support*

Advisors: Charles Wes Cowan (Computer Science) and Thomas Davidson (Sociology)

Salma Ismail, *COVID-19, Neurological Disorders, and Health Disparities in African American Communities*

Advisors: Gabriella D'Arcangelo (Cell Biology & Neuroscience) and Kamal Khan (Africana Studies)

**Interdisciplinary Honors Theses  
(Panel B)**

1:00 pm – 3:00 pm

**Panel B: Historical & Contemporary Perspectives** | Chair: Paul Blaney, Writer  
in Residence, SAS Honors Program

Kevin Titkov, *East vs West: Cultural Revisionism of the Second World War*

Advisors: Jochen Hellbeck (History) and Stephen Kilianski (Psychology)

Jane Matto, *Copycat: How a Person's Predispositions Leads them to Become Attached to Fictional Characters*

Advisors: Lyra Stein (Psychology) and Sandy Flitterman-Lewis (Women's and Gender Studies)

Umayma Saifuddin, *Examining the Leaky Pipeline: Gendered Responses to Success & Failure in STEM*

Advisors: Shana Cole (Psychology) and Kristen Springer (Sociology)

Sonia Tam, *"Yellow Peril Supports Black Power": #StopAsianHate, Black Lives Matter, and Negotiating Black-Asian Solidarity*

Advisors: Allan P. Isaac (American Studies, English) and Kavitha Ramsamy (Africana Studies)

### **Interdisciplinary Research Teams**

1:00 – 3:00 pm

**Session 1:** | Chair: Jenevieve DeLosSantos, Director of Special Pedagogic Projects, SAS Office of Undergraduate Education

*Conversational AI for Course Planning*

Advisor: Matthew Stone (Computer Science)

Team: Bianca Caproni, Vanessa Chin, Aisha Humaira, Mugdesh Pandkar, Nicole Ross, Swapneil Singh, and Nehal Thakkar

*How Effective are COVID Restrictions on Pedestrian Traffic Flow?*

Advisor: Chuck Keeton (Physics and Astronomy)

Team: Arielle Cohen, Qinyuan Liu, Yanaisy Santana, and Karolin Wadie

*A Historical and Contemporary Look into Protest on the Rutgers- New Brunswick Campus*

Advisor: Andrew Urban (American Studies & History)

Team: Emily Chow, Khayla Dixon, Sadiya Kabir, Jassie Morcos, and Cecilia Ritacco

**Break: 10 minutes**

**Session 2:** | Chair: Jenevieve DeLosSantos, Director of Special Pedagogic Projects, SAS Office of Undergraduate Education

*Language and Emotion: A Heritage Language Perspective*

Advisor: Doaa Rashed (English & Director of Language Engagement Project)

Team: Serena Luckhoff, Zain Mehmood, Amelia Metters, and Yuhan Xie

*French Magazine for K-12: 'La P'tite Gazette*

Advisor: Anne-Catherine Aubert (French)

Team: Camila Correa and Concetta Vecchione

## Conference Participants

**Bianca Caproni (IRT)** is a sophomore majoring in cognitive science and psychology, and minoring in data science. Besides working with her interdisciplinary research team, Bianca is the public relations officer for the Organization of Luso-Americans at Rutgers, a mentor for first-generation students at the Honors College, a mentor for the College Support Program, and a learning assistant for the Honors College Forum course. Over the summer, she is looking forward to doing research at the Human-Computer Interaction Institute at Carnegie Mellon. In her spare time, Bianca likes to read, practice her Spanish and Portuguese, bake desserts, train her dog, and watch movies.

**Vanessa Chin (IRT)** is pursuing a major in computer science and a minor in philosophy. She is a member of the Honors College and Douglass Residential College. She enjoys reading, playing viola, and tennis.

**Emily Chow (IRT)** is a junior at Rutgers University and is currently a B.A. candidate with majors in English and economics and a minor in political science. She is involved in the Institute for Women's Leadership Certificate Program, as well as the Aresty Research Center. She is treasurer of the Rutgers University Debate Union, advocacy chair for Asian Student Council, and intends to attend law school for a career in public interest and educational equity. She enjoys reading and art.

**Arielle Cohen (IRT)** is a junior in the Honors College from Marlboro, NJ. She is majoring in public health and statistics. In addition to being an interdisciplinary research fellow, she is on the executive board of Rutgers Hillel, serves as an associate editor for the Rutgers Journal of Bioethics, and is an extern with the New Jersey Big Data Alliance through the Rutgers MBS Externship Exchange. She loves cooking, dancing, and ice-skating. She will be interning at Regeneron Pharmaceuticals this summer in the IT department.

**Joshua Gole (IHT)** is a computer science major with a minor in mathematics and business administration; he is also completing a certificate in Latino and Caribbean studies. During his time at Rutgers, he was the president of RU Big Buddy, has been a three-time winner of the bi-annual HackRU hackathon, and was recognized 1st place winner of the Salhotra Quant Challenge 2020. He was also a peer mentor with the SAS Honors Program, and a member of the ML/AI division of Rutgers IEEE. Outside of Rutgers, he interned as a system administrative engineer and worked as a consulting intern at Capco, where he will be returning upon graduation as a full-time associate consultant.

**Aisha Humara (IRT)** is a junior in the SAS Honors Program, a computer science major, and a double minor in English and philosophy. She is passionate about both STEM and the humanities, and loves to code, read, and write in her free time. Aisha is currently an application & software development intern at Colgate-Palmolive. She worked as a software engineer intern at Meta last summer and will be returning this summer. She is also an honors ambassador for the SAS Honors Program. She has had a wonderful experience working on the conversational artificial intelligence project this past year; she hopes to continue doing similar work in the future.

**Salma Ismail (IHT)** is a graduating senior in the SAS Honors Program majoring in biological sciences on the pre-medical track. She currently volunteers as an emergency medical technician with her local first aid squad, and in her honors academic career she is working on a healthcare documentary project centered on free clinics in New Brunswick. She will be dedicating her gap year to clinical work and experience in preparation for medical school.

**Sadiya Kabir (IRT)** is a junior at Rutgers University -- New Brunswick where she is majoring in political science and public policy. In addition to being a research fellow with the SAS Interdisciplinary Research Team Program, she is a Rutgers Federal Advocacy Corp fellow, serves as a resident assistant on Livingston Campus, media director of RU Progressives, recruitment chair for Phi Alpha Delta Pre-Law Fraternity and a member of the Pi Sigma Alpha, the political science honor society. With experience in advocacy and politics, she hopes to pursue a career in human rights or immigration law after graduation.

**Qinyuan Liu (IRT)** is from Chengdu, China and is currently majoring in computer science. He plans to apply to graduate school after graduation. He has internship experience in Chengdu Chocolate Cartoon Co. His main hobby is eating barbecue and all kinds of fried unhealthy food while also working hard on fitness.

**Serena Luckhoff (IRT)** is a senior majoring in cognitive science and German; her research interests draw on both the sciences and the humanities, including neurolinguistics, quantum biology, philosophy of science, and philosophy of language. She is a research assistant with the Comparative and Experimental Linguistics Lab at Rutgers, a former intern at the Rolfs Lab for Active Perception and Cognition at Humboldt University Berlin, and is currently writing her thesis in German studies about pre-linguistic address as conceived by Werner Hamacher. Next year, Serena will be in Austria on a Fulbright grant to conduct a research project titled "Quantum Mechanics as a Linking Theory between

Science, Philosophy, and Literature," which will be an interdisciplinary investigation into the epistemological frameworks underlying the development of quantum theory.

**Jane Matto (IHT)** is a senior at Rutgers University who will be graduating this May. She is a psychology major with a double minor in creative writing and Italian, and a student in the School of Arts and Sciences Honors Program. This past year, she has served as the president of the Rutgers University Queens Chorale and the internal secretary for the Rutgers Creative Writing Club. After graduating from Rutgers undergraduate, she plans to study psychology or social work at one of Rutgers' graduate programs, or take a gap year to continue working with animals, as she did last summer.

**Zain Mehmood (IRT)** is majoring in journalism and media studies with a minor in Korean. Zain is part of the Fashion Organization of Retail and Marketing Club and was the treasurer for Rutgers' chapter of FeelGood, an organization aiming to raise funds to end world hunger by 2030. Growing up in Brooklyn's Chinatown and speaking three languages developed his deep interest in languages. Zain began learning Korean and taught English to North Korean refugees. Thus, taking part in research about heritage speakers and their emotions towards languages through the IRT fellowship program was essential to Zain, as languages have been around his whole life. After graduating from the School of Communication and Informatics, Zain will be working as a marketing coordinator for a fashion company. Eventually he wants to get a master's in investigative journalism or fashion marketing and start a fashion company, specifically giving homage to his South Asian heritage.

**Amelia Metters (IRT)** is an undergraduate junior pursuing a double major in Asian Studies and information technology and informatics. While at Rutgers, she has conducted some Tibetan/Chinese transliteration studies with Professor Simon Wickhamsmith and participated in the RU-FIT program where students serve as course instructors for a semester. Outside of Rutgers, she is an intern at Athena Gaia learning more about digital marketing and overall product development as well as a digital coordinator for a small luxury Lingerie brand. In her free time, she enjoys teaching and doing yoga and spending time with loved ones.

**Jassie Morcos (IRT)** is a senior majoring in political science with a double minor in American Studies and human resource management. Jassie is currently a policy intern with the New Jersey Governor's Office for the First Lady. She has also been involved on campus through RUSA as the Judicial Council Chair until this past January and is involved with Douglass Residential College through the PLEN program as an ambassador. Her post-

graduation plans are to attend the University of Chicago, Harris school for a master's in public policy.

**Mugdhesh Pandkar (IRT)** is a sophomore majoring in computer science and minoring in data science. He is an engineer and organizer for the HackRU RnD team and conducts research on conversational AI. Mugdhesh is also a programming instructor who enjoys teaching others how to code and immersing himself within technology. In his spare time, he enjoys logic puzzles, photography, and hanging out with friends and family. This summer, Mugdhesh looks forward to interning at Lockheed Martin Advanced Concepts Laboratory as a software/research engineer.

**Cecilia Ritacco (IRT)** is a senior in the School of Arts and Sciences (SAS) Honors Program at Rutgers-New Brunswick. She is pursuing a bachelor's degree in political science with a minor in women's and gender studies. Most recently, Cecilia served as a legislative intern in the office of U.S. Senate Majority Leader Chuck Schumer. She has also held internships with the Feminist Majority Foundation, the Center for Youth Political Participation, New Jersey's Fifth Congressional District, and New Brunswick City Government. On campus, she is the president of both the Rutgers University Democrats and Pi Sigma Alpha, the political science honor society. Previously, she conducted research as a Lloyd C. Gardner Fellow in Leadership and Social Policy and as an Aresty Undergraduate Research Assistant. Cecilia is an honors thesis candidate in the Department of Political Science and she is a member of the Phi Beta Kappa Society, Pi Sigma Alpha, and Triota honors societies. After earning her bachelor's degree she hopes to eventually pursue her Ph.D. in political science.

**Nicole Ross (IRT)** is a junior at Rutgers University in both the School of Arts and Sciences and the School of Communication and Information, pursuing a degree in information technology and informatics coupled with minors in psychology and business administration. She is passionate about user experience design and research, which is the field she plans to contribute her knowledge and skills to upon graduation. During her time here at Rutgers, she has been an active member of two design clubs: Blueprint and CreativeX. Nicole participated in a product design fellowship during her sophomore year, and then became an education director to teach that same fellowship to students the following semester. She has also conducted research and developed a case study for the Rutgers HCI Lab for Health and Sustainability, and has interned as a UX designer and researcher for a startup app based in San Francisco. Right now, Nicole is interning as a UX/UI intern for Scarlet Computing Solutions in Princeton, and is wrapping up her experience as a research fellow for the IRT program. Nicole has learned so many valuable skills that have allowed the team and her to successfully collaborate and combine all of

their different areas of expertise to conduct this research project. Her experience as an IRT fellow has also made her more confident about immersing into professional settings in the real world, beyond just being a student, and she is extremely grateful for that!

**Umayma Saifuddin (IHT)** is a senior at the School of Arts & Sciences and the Bloustein School of Public Planning, soon to graduate with a bachelor of science in biology and public health. Umayma recently received grant funding for her research from Aresty. This past month, she raised \$1100 for a local non-profit in New Brunswick that serves the homeless. She is secretary of the Rutgers Examiner, a pre-health journal that publishes every semester. She is also an avid cook and baker. After graduation, she plans to work as a medical scribe to gain clinical experiences and apply to medical school.

**Yanaisy Santana (IRT)** is a public health major with a double minor in Latino and Caribbean studies and biological sciences. She is a resident assistant in the Woodbury Bunting-Cobb residence hall on Douglass Campus and serves as a red pine ambassador for Douglass, where she does tours for prospective students and helps curate events that embody the Douglass student experience. Santana is also the president of Rutgers Union Estudiantil Puertorriquena, which is the Union for Puerto Rican students, where they raise awareness to issues regarding Puerto Rico and the Latine community at large. Sanatana's interests include listening to music, reading new books, and trying new foods and restaurants. Fun Fact: She has a restaurant bucket list!

**Swapneil Singh (IRT)** is a sophomore at the Rutgers School of Arts and Sciences, majoring in computer science and cognitive science. He is currently interning at a project for railroad safety, in addition to his work on conversational AI with his interdisciplinary research team. His hobbies primarily consist of reading, in particular fantasy, sci-fi, and analyses of cognition and everyday life.

**Sonia Tam (IHT)** is an English and Asian Studies double major with minors in Race and Ethnic Studies (CCRES), Creative Writing, and Asian American Studies. She currently works as a Writing Center tutor and as an editorial intern at Rutgers University Press. In her free time, she is a member of Verse One Dance Troupe, and her hobbies include baking bread, playing the violin, and pole dancing. After graduation, she hopes to continue a career in publishing, with an interest in children's books.

**Nehal Thakkar (IRT)** is a sophomore at Rutgers University majoring in computer science. She has pursued her interest in college through a range of computer science classes, IRT and at her internship last summer working for IDT, a government contractor. She has enjoyed being a part of IRT and collaborating with her fellow peers while learning new

topics in computer science. Outside of academics, Nehal is a part of Rutgers University's Raas and Garba Association, an Indian dance team, and has competed at numerous competitions this year. In the summer, Nehal is excited to be joining Verizon as a data science intern!

**Kevin Titkov (IRT)** is a senior majoring in Cell Biology & Neuroscience and Psychology, with a minor in History. He is a medical scribe for New Jersey Cancer Care Oncology & Blood Disorders. He volunteers as peer mentor for the American Medical School Association and as a campus ambassador for Gift of Life Bone Marrow Registry. In his free time, he practices Taekwondo as a third degree black belt at Rutgers TKD. He intends to obtain additional clinical experience for a year before applying to medical school.

**Concetta Jenny Vecchione (IRT)** is a third-year student majoring in psychology, French literature, and Italian studies with a minor in art history. Last semester she was involved in the psychology department's internship in community and applied psychology where she learned with psychiatrist Dr. Anthony Tobia about the field of psychiatry through film and its applications in the real world. She is also a recent inductee into Phi Beta Kappa, one of the oldest academic honors societies in the United States. She has been working on the magazine, *La Ptite Gazette*, since the spring 2020 semester and has contributed a number of articles as well as managed the outreach program to New Jersey schools, managing the new contributions to the magazine, and organized the social media presence of the magazine along with her colleague Camila Correa. She is very proud of the work she and the other students contribute to the magazine and is very excited to continue working on this research team and continue to work with other French programs in New Jersey schools,

**Karolin Wadie (IRT)** is a third-year student at Rutgers University with a major in public health, a minor in psychology, and a certificate in global health and health policy. Karolin is also a master's candidate in public health as part of an articulated degree program at the Rutgers School of Public Health. She plans to graduate with a bachelor's of science in January 2023 and continue pursuing her MPH. Karolin has a strong interest in infectious disease epidemiology and pharmacoepidemiology. After completing her MPH, Karolin would like to pursue a PhD. or an epidemiology position.

**Yuhan Xie (IRT)** is a junior and majoring in psychology with a minor in DCIM. He is currently working as the minister of the Propaganda Department of Rutgers Chinese Student and Scholar Association and the vice-chairman of Rutgers Bible Study Group. His research experience includes work like "How Can Different Languages of News Affect Bilingual Readers' Perception?" His hobbies include singing and writing some short

passages about his thinking and opinions online. He has a personal WeChat official account and he is currently learning how to set up a personal website.



## Thank You

With thanks for the generous support of the IHT and IRT faculty advisors, Paul Blaney for his work with IHT students through the year in Research Workshop, Alan Grossman for his generous support of the Interdisciplinary Research Teams, the SAS Honors Program staff, and SAS Office of Undergraduate Education.

### WEBSITES

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