MATHEMATICS OPEN HOUSE
Friday, April 23, 2021
11 am–6 pm (PDT); Zoom Webinar

The Department of Mathematics at California State University, Northridge invites you to join us via Zoom Webinar for a day celebrating mathematics research, education, and career exploration. The event includes faculty and student presentations and alumni panels.

PROGRAM

11 am	Welcome
	Rabia Djellouli Department Chair

11:05 – 11:55 am	Faculty Research Presentations
Session Chair	***Emmanuel Yomba*** Professor of Mathematics
Presenter	***Jing Li*** Associate Professor of Mathematics

Modeling Waning and Boosting of COVID-19 in Canada with Vaccination

Several vaccination policy-making bodies, including the Government of Canada's National Advisory Committee on Immunization (NACI), have solicited transmission modeling studies to evaluate possible strategies for allocating vaccines against SARS-CoV-2. Most models of the transmission of SARS-CoV-2 are modifications of a classic model in population biology in which the host population is partitioned into those who are susceptible to infection; infected, but not yet infectious; infectious; and removed from the process to include features of the biology of COVID-19 that might affect transmission (e.g., pre- and asymptomatic infections, hospitalization of some with symptomatic infections, vaccination, mortality, and waning of immunity). We have used a model with some of these features that however emphasizes the waning and boosting of immunity and relationship between immunity when infected and disease to answer some of the questions posed by the NACI.

Presenter	***David Klein*** Professor of Mathematics

Climate Models & the Climate Crisis: An Overview

A brief introduction to the mathematics of climate science and the magnitude of the climate crisis will be given. Questions about what to expect in the future, and what can be done will also be addressed.

12:00-12:45 pm	Discover CSUN Math: Information Session

Presenters	**Natalie Howe** Mathematics Academic Advisor
	Alberto Candel Mathematics Graduate Program Coordinator
	Andrea Nemeth Associate Director of Mathematics Tutoring Center
	Mary Rosen Associate Chair

Want to learn more about what CSUN Math has to offer? This is the perfect session for prospective students and family members interested in learning more about our undergraduate and graduate programs and department resources. You will hear from those who work closely with students to support them through their journey and have the opportunity to ask questions live.

1-2:15 pm	Student Research Presentations

Session Chair	**Jason Lo** Assistant Professor of Mathematics

Presenters	**Gulnaz Shalgumbayeva, Erick Castillo** BS Candidates in Mathematics – Statistics

Statistical Analysis of COVID-19
Faculty Advisor: Carol Shubin

Presenter	**Julian Corpeno** MS Candidate in Mathematics

Solving a Generalized Gepner Equation for Bridgeland Stability on Elliptic Surfaces
Faculty Advisor: Jason Lo

Presenter	**Inga Girshfeld** MS Candidate in Mathematics - Applied Mathematics

High-Order Wave Tracking Strategy for Solving High-Frequency Scattering Problems
Faculty Advisor: Rabia Djellouli

Presenter	**Brandon Sripimonwan** MS Candidate in Mathematics

Exploring Local Crossing Numbers of Complete Bipartite Graphs
Faculty Advisor: Silvia Fernandez

Presenter	**Courtney van der Linden** MS in Mathematics - Applied Mathematics, CSUN 2020

Correlation of Golay–Rudin–Shapiro Sequences
Faculty Advisor: Daniel Katz

2:15-3 pm	Musical Intermission

Enjoy music by the *Johnny Blue Jay Band* featuring

Jerry Rosen
Professor of Mathematics

John Sikora
BA in Pure Mathematics, CSUN 2005
MS in Mathematics, CSUN 2008

Greg Imhoff
MS in Mathematics, CSUN 2013

Sam McAdam

3-3:55 pm	University & Community College Teaching Panel

Panel Moderator	***Silvia Fernandez*** Professor of Mathematics
Alumni Panelist	***Kevin Balas*** Instructor of Mathematics Department of Mathematics Moorpark College, California BA in Mathematics – Secondary Teaching, CSUN 2011 MS in Mathematics, CSUN 2014
Alumni Panelist	***Dr. Bret Holladay*** Assistant Professor of Mathematics Department of Mathematics Cal Poly, SLO, California BS in Applied Mathematics, CSUN 2011 MS in Applied Mathematics, CSUN 2014 PhD in Statistics and Applied Probability, UC Santa Barbara 2019
Alumni Panelist	***Melida Paz*** Instructor of Mathematics Department of Mathematics Bakersfield College, California BS in Mathematics – Secondary Teaching, CSUN 2016 MS in Mathematics, CSUN 2018
Alumni Panelist	***Dr. Azadeh Rafizadeh*** Associate Professor of Mathematics Department of Mathematics and Data Science William Jewell College, Missouri BA in Pure Mathematics, CSUN 2003 MS in Mathematics, UC Riverside 2007 PhD in Mathematics, UC Riverside 2011

Alumni Panelist	**Dr. Evan Randles** Assistant Professor of Mathematics Department of Mathematics and Statistics Colby College, Maine BA in Mathematics and BS in Physics, CSUN 2010 MS in Applied Mathematics, CSUN 2011 PhD in Applied Mathematics, Cornell University 2016
Alumni Panelist	**Yeranuhi Semerdjian** Instructor of Mathematics Department of Mathematics Los Angeles Pierce College, California BS in Astrophysics with Mathematics Minor, CSUN 2006 MS in Mathematics, CSUN 2010
4-4:55 pm	**Secondary Teaching Alumni Panel**
Panel Moderator	**Kellie Evans** Professor of Mathematics
Alumni Panelist	**Aida Britton** Mathematics Teacher Louisville High School, Woodland Hills MS in Mathematics, CSUN 2020
Alumni Panelist	**Diana Contreras** Mathematics Teacher Panorama High School and Magnets, Panorama City BA in Mathematics – Secondary Teaching, CSUN 2018
Alumni Panelist	**Helena Dallas** Mathematics Teacher Sylmar Charter High School, Sylmar BA in Mathematics – Junior Year Integrated Credential Program, CSUN 2020
Alumni Panelist	**Robert Hammell** Mathematics Teacher and Department Chair Burbank High School, Burbank BA in Mathematics – Four Year Integrated Credential Program, CSUN 2008 MA in Secondary Education – Mathematics Education, CSUN 2012
Alumni Panelist	**Samantha Maxey** Mathematics Teacher Castaic Middle School, Castaic BA in Mathematics – Secondary Teaching with Finance Minor, CSUN 2017

5-5:55 pm	Industry Alumni Panel
Panel Moderator	*Mark Schilling* Professor of Mathematics
Alumni Panelist	*Dr. Samuel Fleischer* System Engineer NASA Jet Propulsion Laboratory BS in Mathematics, CSUN 2015 PhD in Applied Mathematics, UC Davis 2020
Alumni Panelist	*Sara Fratianne* Senior Business Manager Microsoft Azure BS in Applied Mathematics, Loyola Marymount University 2005 MS in Mathematics, CSUN 2007 MBA in Finance, Strategic Management, Managerial and Organizational Behavior, University of Chicago, Booth School of Business 2014
Alumni Panelist	*Pareen Kalia* Senior Data Scientist Farmers Insurance BTech in Computer Engineering, NMIMS 2012 MS in Applied Mathematics, CSUN 2017
Alumni Panelist	*Andy Milne* Senior Software Engineer Walt Disney Animation Studios BS in Mathematics and BSE in Computer Engineering, University of Michigan 2001 MS in Applied Mathematics, CSUN 2015
6pm	Closing Remarks
	Rabia Djellouli Department Chair