DELEGATE HANDBOOK

QUEEN'S

SPACE

CONFERENCE

FEBRUARY 4-6

QSC 2022: SUSTAINABILITY IN SPACE

WELCOME

TO QSC 2022: SUSTAINABILITY IN SPACE

QSC IS CANADA'S LARGEST STUDENT-RUN SPACE CONFERENCE FOCUSED ON CONNECTING STUDENTS WITH INDUSTRY LEADERS. WITH 100+ DELEGATES FROM UNIVERSITIES ACROSS CANADA, WE COULD NOT BE MORE EXCITED TO SHARE THIS EXPERIENCE WITH YOU!

- QSC EXECUTIVE TEAM 2022

DELEGATE HANDBOOK

IMPORTANT INFORMATION

DATES: FEBRUARY 4-6, 2022

ZOOM LINK:

HTTPS://QUEENSU.ZOOM.US/J/95212745130?PWD=MDVXNDZEMMRLT3HFD0F0QWDCA1LUUT09

MEETING ID: 952 1274 5130
PASSCODE: 569345

REGISTRATION OPEN: 5:00 PM (EST)
FIRST DAY START TIME: 6:00 PM (EST)
CONFERENCE CLOSING REMARKS: 12:30 AM (EST)

CONNECT

FACEBOOK: QUEEN'S SPACE CONFERENCE
INSTAGRAM: @QUEENSSPACE

IF YOU HAVE ANY QUESTIONS OR NEED ANY HELP:

CONNOR MCALLISTER (LEFT)
DELEGATES COORDINATOR
19CJM21@QUEENSU.CA
343-333-5072

GABE DEAN (RIGHT)
DELEGATES COORDINATOR
20GND@QUEENSU.CA
587-284-7400

DELEGATE HANDBOOK

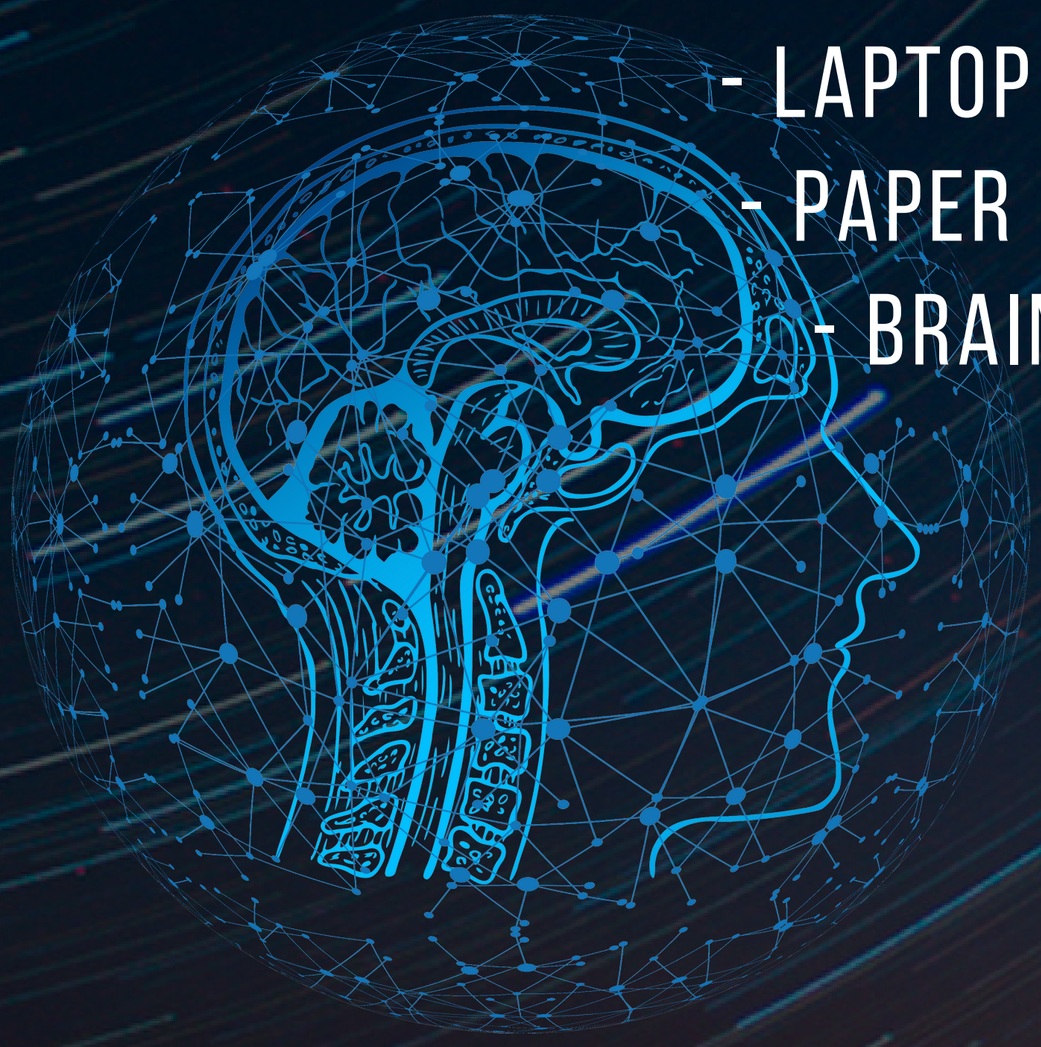
BEFORE THE CONFERENCE

DRESS CODE

- BUSINESS CASUAL FOR ALL DAYTIME EVENTS AND SPEAKERS
- CASUAL ATTIRE FOR SOCIAL
- A COOL SPACESUIT IF YOU OWN ONE

THING'S YOU'LL NEED

- LAPTOP OR TABLET
- PAPER FOR NOTES
- BRAIN POWER



SCHEDULE

Friday 5:00–9:00 PM

Registration	5:00 PM
Welcome	6:00 PM
Opening	6:15 PM
Speaker #1	6:30 PM
Break	7:30 PM
Speaker #2	7:45 PM
Closing Remarks	8:45 PM

Saturday 9:45–9:00 PM

Saturday Welcome	9:45 AM
Saturday Panel	10:00 AM
Case Comp Intro	11:00 AM
Lunch / Case Comp	11:15 AM
Case Comp Presentations	1:15 PM
Student Fair	2:45 PM
Speaker #3	3:15 PM
Speaker #4	4:15 PM
Dinner Break	5:15 PM
Keynote Speaker	6:30 PM
Saturday Closing	8:15 PM
Networking / Break	8:30 PM
Social!	9:00 PM

Sunday 9:45–12:30 PM

Sunday Welcome	9:45 AM
Speaker #6	10:00 AM
Coffee Break	11:00 AM
Speaker #7	11:30 AM
Closing Remarks	12:30 PM

SPEAKERS

Jonathan Kelly
Professor
University of Toronto

Prof. Jonathan Kelly leads the Space & Terrestrial Autonomous Robotic Systems (STARS) Laboratory at the University of Toronto Institute for Aerospace Studies, where his group carries out research at the nexus of sensing, planning, and control, with an emphasis on problems related to perception, representation, and understanding of the world. Prior to joining the University of Toronto, he was a postdoctoral fellow in the Computer Science and Artificial Intelligence Laboratory at MIT. Prof. Kelly received his PhD and MS degrees from the University of Southern California, and his MSc and BSc degrees from the University of Alberta. Before starting graduate school, he was a Software Engineer in the Space Technologies division of the Canadian Space Agency. In his spare time, he loves to scuba dive, which is as close as he's come (so far) to being weightless.

SPEAKERS

Dr. Eve J. Lee
Assistant Professor
McGill University

Dr. Eve J. Lee is an Assistant Professor of Physics and a William Dawson Scholar at McGill University. Using a variety of theoretical tools, her research aims to uncover the origin of diversity in planetary systems: to understand what we have observed and to predict what we may discover through future missions. Dr. Lee received her Hon. BSc in Astronomy and Physics at the University of Toronto, PhD in Astrophysics at UC Berkeley, and was a Sherman Fairchild Postdoctoral Scholar in Theoretical Physics/Astrophysics at Caltech until 2019 when she moved back to her home country to take up a faculty position at McGill.

SPEAKERS

Melissa Cass
Director of Business Operation
MDA

Melissa Cass is a systems, operations and safety engineering professional with an EngPhys'99 degree from Queen's University and Masters degrees focused in Aviation Safety & Accident Investigation and Space Science, from Embry-Riddle Aeronautical University. In her 20+ year career in MDA, Canada's largest space company, she has worked in many fields including systems engineering, safety engineering, quality and management. As the Director of Safety & Mission Assurance she leads a staff of skilled safety and reliability engineers, quality and product assurance engineers to define, analyze and validate the design and development of safety critical space robotics systems like the Canadarm and Space Station Canadarm2. Now as Director of Business Operations, she uses her cross-functional operations experience to lead company-wide operations projects that enable the simplification and modernization of processes and tools.

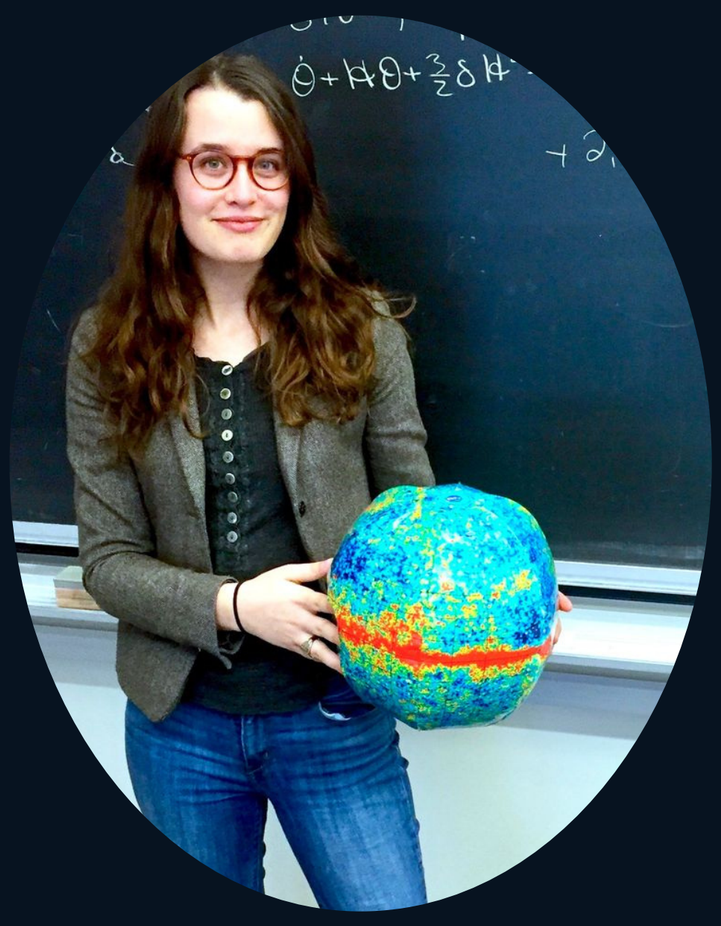
SPEAKERS

Mathew Madhavacheril

P.J.E Peebles Posdoctoral Fellow
Perimeter Institute

Dr. Mathew Madhavacheril researcher tackling questions in cosmology. He's currently the P. J. E. Peebles Postdoctoral Fellow at the Centre for the Universe, Perimeter Institute, and he'll be starting as an Assistant Professor at the University of Southern California in August 2022. He was previously a Postdoctoral Research Associate at the Department of Astrophysical Sciences at Princeton University, with his PhD thesis at Stony Brook University focused on constraining Dark Energy using the technique of Gravitational Lensing. He's primarily involved with the Atacama Cosmology Telescope (ACT) collaboration, a wonderful group of people who operate and analyze data from a microwave telescope in the Atacama Desert in Chile. This telescope measures radiation left over from the hot, dense past of the Universe. They're now gearing up for a bigger project -- the Simons Observatory -- which will bring new insights into the very early universe, neutrinos, dark matter and dark energy.

SPEAKERS



Katelin Schutz
Professor
McGill University

Prof Katelin Schutz explores astrophysical manifestations of physics beyond the Standard Model. Her group research interests are at the intersection of astrophysics, particle physics and cosmology. Their main goal is to extract as much information as possible about what the Universe is made of by considering how astrophysical systems would be affected with the addition of undiscovered particles and interactions. A major focus of their research is understanding the composition and behavior of dark matter, also interested in other extensions of the Standard Model. While primarily theorists, they do occasionally get into the data when it is available.

SPEAKERS

Holly Ridings
Flight Director Chief
Lyndon B. Johnson Space Center, NASA

Holly Ridings started her NASA career as an ISS flight controller in the THOR. She was the Lead Flight Director for Expedition 16, STS-127, and the first SpaceX Dragon mission to ISS. As the Expedition 16 lead, she was responsible for the ISS crew during STS-120, STS-122, STS-123, and the first ATV mission. E As the STS-127 lead, she was responsible for the addition of the Japanese Exposed Facility and the External Platform to the ISS over the course of a 16-day mission that included 5 EVAs. As the NASA lead for the Dragon Demo mission to ISS, she overlooked the safety of ISS and the ISS crew during the arrival of the first commercial vehicle at ISS including the final decision for rendezvous and capture. She served as the Flight Director Office Assistant for ISS and Visiting Vehicles before selection as the Deputy Chief of the Flight Director Office in the fall of 2014. Prior to being selected as a Flight Director, she was the lead for the ISS ADCO (Attitude Determination and Control) group. (Thermal Operations and Resources Group).

KEYNOTE SPEAKER

Perry Johnson-Green
Senior Program Scientist, Life Sciences

Dr. Johnson-Green currently manages the Health and Life Sciences group, at the Canadian Space Agency. He obtained his M.Sc from Queen's University in 1988, under the supervision of Dr. Adele Crowder in the Dept. of Biology, and his Ph.D. from the University of Manitoba in 1994. Before joining the CSA, he was a member of the faculty of Acadia University, carrying out research on the ecology of plant-fungal interactions, and on the prevention of food spoilage using bio-products. Dr. Johnson-Green manages the selection and coordinates the implementation of Canadian experiments on the International Space Station. He has shepherded the completion of 37 studies on the International Space Station. He is currently the Co-Chair of the International Space Life Sciences Working Group and represents the CSA on the Multilateral Human Research Panel for Exploration and the Human Research Multilateral Review Board (the Research Ethics Board of the International Space Station).

CASE COMPETITION:

The QSC Case Competition will take place during the day on Saturday. You will be randomly assigned to a team of delegates, and every team will receive the same case. Check out last year's case study on our website for an example:
www.qsconference.com

You and your team will have a few hours to prepare a presentation on your recommendation for the case and will then present in front of a panel of judges and other delegates.

Judges will select the top teams to present at the finals. One team will then be selected as the winners of the case competition. Delegates on the winning team will win an assortment of prizes.

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