

# THE DISSEMINATION OF UNDERGRADUATE RESEARCH INITIATIVES THAT SUPPORTS DIVERSITY AND INCLUSION IN THE GEOSCIENCES

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A WRITING WORKSHOP

The National Science Foundation Grant (ICER #1946891)  
New York City College of Technology, CUNY  
Brooklyn, New York

November 14 – 16, 2019





## THE DISSEMINATION OF UNDERGRADUATE RESEARCH INITIATIVES THAT SUPPORT DIVERSITY AND INCLUSION IN THE GEOSCIENCES

The New York City College of Technology, CUNY, Brooklyn, New York  
 Academic Complex (AC) Building - 285 Jay Street • Namm Hall - 300 Jay Street  
**Workshop Website:** <https://openlab.citytech.cuny.edu/nsf-geosciences-workshop/>

# AGENDA

Time	THURSDAY, NOVEMBER 14, 2019	Location
8:30 - 9:00 AM	Registration/Breakfast	Academic Complex (AC) Lobby
9:00 - 9:15 AM	Welcome and Overview of the Workshop • Dr. Janet Liou-Mark	Academic Complex (AC) 105
9:15 - 9:30 AM	Greetings • Dr. M. Brandon Jones <i>NSF Program Director – Education and DiversityGEO/OAD</i>	AC 105
9:30 – 10:15 AM	Keynote Address <i>Training the Next Generation of Diverse Scientists: A Social Scientist's Perspective</i> • Dr. Valerie Were <i>Social Science Lead, NOAA-Center for Earth System Sciences and Remote Sensing Technologies (NOAA CESSRST)</i>	AC 105
10:15 – 10:30 AM	Coffee Break	AC Lobby
10:30 – 11:15 PM	Invited Speaker <i>Publishing Articles on Diversity and Inclusion in the Geosciences</i> • Dr. Alexander Gates <i>Rutgers University, Special Issue Editor, Journal of Geoscience Education</i>	AC 105
11:15 – 12:00 PM	Speed Brainstorming Session • Dr. Valerie Sloan	AC 105
12:00 – 12:45 PM	Working Lunch	AC Lobby
12:45 – 1:15 PM	Documenting the Education Research Findings • Drs. Reginald Blake, Kevin Chu, and Shakila Merchant	AC 105
1:15 – 3:00 PM	Working Session	AC 105
3:00 – 3:15 PM	Coffee Break	AC Lobby
3:15 – 5:30 PM	Working Session	AC 105
5:30 – 6:30 PM	<i>The Art of Publishing a Geoscience Book Chapter</i> • Dr. Reneta D. Lansiquot <i>New York City College of Technology, Professor &amp; Program Director of Professional and Technical Writing</i> <i>Dinner and Networking</i>	AC 105/Lobby
6:30 – 10 PM	Option to continue working on the manuscript	
10:00 PM	Submit to Dr. Kevin Chu <a href="mailto:kchu@sea.edu">kchu@sea.edu</a> with subject heading: <i>Draft 1</i> • Project/Program Description, Participants, Methodology	

Time	FRIDAY, NOVEMBER 15, 2019	Location
8:30 – 9:00 AM	Networking and Breakfast	Namm Hall 402
9:00 – 9:15 AM	Overview of the Day Drs. Janet Liou-Mark and Reginald Blake	Namm Hall 402
9:15 – 9:30 AM	<i>Progress Made: A 3-minute summary presentation</i> Dr. Kevin Chu, Moderator <ul style="list-style-type: none"> <li>• Ambrose Jearld, Jr. &amp; Kwanza Johnson</li> <li>• Andria Ellis</li> <li>• Bingqing Liang</li> <li>• Gabriela Noriega</li> <li>• James Pierson</li> </ul>	Namm Hall 402
9:30 – 10:30 AM	Working Session	Namm Hall 402
10:30 – 10:45 AM	Coffee Break	Namm Hall 402
10:45 – 11:00 PM	<i>Progress Made: A 3-minute summary presentation</i> Dr. Kevin Chu, Moderator <ul style="list-style-type: none"> <li>• Jacqueline Rousseau, Audrey Trotman, &amp; Natasha White</li> <li>• Jeanne Sumrall</li> <li>• Jo-Anne Manswell Butty</li> <li>• Kadidia Thiero</li> </ul>	Namm Hall 402
11:00 – 12:00 PM	Working Session	Namm Hall 402
12:00 – 1:00 PM	Working Lunch	AC Lobby
1:00 – 1:30 PM	Open Scholarly Publishing <ul style="list-style-type: none"> <li>• Dr. Monica Berger New York City College of Technology, Instruction and Scholarly Communications Librarian</li> </ul>	AC 705
1:30 – 3:00 PM	Working Session	AC 705
3:00 – 3:15 PM	Coffee Break	AC Lobby
3:15 – 3:30 PM	<i>Progress Made: A 3-minute summary presentation</i> Dr. Kevin Chu, Moderator <ul style="list-style-type: none"> <li>• Laura Good</li> <li>• Leah Turner</li> <li>• Lora Harris</li> <li>• Paulinus Chigbu</li> </ul>	AC 705
3:30 – 5:30 PM	Working Session	AC 705
5:30 – 6:30 PM	<i>Progress Made: A 3-minute summary presentation</i> Dr. Kevin Chu, Moderator <ul style="list-style-type: none"> <li>• Prajukti Bhattacharyya</li> <li>• Robert Kirsch</li> <li>• Sarah Sheffield &amp; Victor Ricchezza</li> <li>• Sorina Stalla</li> <li>• Tamara Pico</li> <li>• Vanshan Wright</li> </ul> Dinner and Networking	AC Lobby
6:30 – 10:00 PM	Option to continue working on the manuscript	
10:00 PM	Prepare and submit Lightning Talk PowerPoint presentation (maximum four slides) to Ms. Julia Rivera at <a href="mailto:juliarivera40@gmail.com">juliarivera40@gmail.com</a> with subject heading: <i>Lightning Talk</i> .  Submit to Dr. Kevin Chu <a href="mailto:kchu@sea.edu">kchu@sea.edu</a> with subject heading: <i>Draft 2</i> . <ul style="list-style-type: none"> <li>• Abstract, Results, Conclusions, Acknowledgments, References</li> </ul>	

Time	SATURDAY, NOVEMBER 16, 2019	Location
8:30 – 9:00 AM	Networking and Breakfast	AC Lobby
9:00 – 9:05 AM	<i>Overview of the Day</i> • Drs. Janet Liou-Mark and Shakila Merchant	AC 105
9:05 – 9:10 AM	<i>Publishing in the Bulletin of the American Meteorological Society (BAMS)</i> • Dr. Valerie Sloan • Dr. Rebecca Haacker <i>Director of NCAR Education and Outreach</i>	AC 105
9:15 – 10:30 AM	Working Session Review manuscript	AC 105
10:30 – 10:45 AM	Coffee Break	AC Lobby
10:45 – 11:45 AM	<i>Lightning Talks I – Research Findings (5-minute presentations)</i> • Dr. Valerie Sloan, <i>Moderator</i>	AC 105
11:45 – 12:45 PM	Working Lunch	AC Lobby
12:45 – 1:45 PM	<i>Lightning Talks II – Research Findings (5-minute presentations)</i> • Dr. Valerie Sloan, <i>Moderator</i>	AC 105
2:00 PM	Close of Workshop Survey Feedback Submit the Final Draft of your manuscript to Dr. Kevin Chu at <a href="mailto:kchu@sea.edu">kchu@sea.edu</a> with subject heading: <i>Final Draft</i> .	

## MAP & FREE WIFI



### Free Wifi

User: Math 11

Passcode: 20November19

# WORKSHOP ORGANIZERS AND PRESENTERS

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**The Dissemination of Undergraduate Research Initiatives that Support Diversity and Inclusion in the Geosciences Writing Workshop is supported by the National Science Foundation grant number ICER #1946891.**

**Dr. Janet Liou-Mark (PI)** is a Professor of Mathematics at New York City College of Technology with a doctorate degree in mathematics education. Her research interest in the implementation of Peer-Led Team Learning (PLTL) instructional model in mathematics has won her the 2017-2018 Scholar on Campus title and the 2011 City University of New York Chancellor's Award for Excellence in Undergraduate Mathematics Instruction. She had mentored approximately 300 underrepresented minority (URM) STEM students of which approximately a third of them are in or have completed graduate school in a STEM discipline. She has co-published with colleagues and students in book chapters, peer-review journals, and conference proceedings on topics related to supporting URMs (including women) and first-generation college students in the STEM disciplines. Dr. Liou-Mark is a Co-PI on a NSF REU grant, NSF IUSE GEOPATH grant, and DOE MSEIP grant. She has expertise in creating programs for URM, first generation, and low-income students and women majoring in STEM disciplines.

**Dr. Reginald Blake (Co-PI)** is a Professor of Physics at New York City College of Technology (City Tech). His research involves the application of satellite and ground-based remote sensing to the study of hydro-climate, hurricanes, and air pollution. He is the Director of City Tech's Center for Remote Sensing and Earth Systems Sciences (ReSESS). In 2008, he was named to New York City Mayor Michael Bloomberg's 13-member panel of scientific experts who were responsible for providing the climate change science that underpins New York City's climate change policy for decades to come. He has since served two more tours of duty (one more under Mayor Bloomberg and one under Mayor De Blasio) on this elite panel. Dr. Blake conducts his climate change research at Columbia University's NASA/Goddard Institute for Space Studies. He is the PI of an NSF REU grant, an NSF IUSE grant, and he was the PI for an NSF OEDG grant. Additionally, he is the Director of City Tech's STEM-based Black Male Initiative (BMI) Program that has over 450 students. He is also the recent (July 2018) recipient of the United States Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring.

**Dr. Shakila Merchant (Co-PI)** is the Deputy Director of the CUNY Remote Sensing Earth Systems Institute and the Assistant Director of the NOAA Center for Earth System Sciences and Remote Sensing Technologies, and brings more than 17 years of experience of managing a multi-faceted and multi-institutional research and education center at the Grove School of Engineering, The City College of New York. Dr. Merchant brings extensive knowledge of recruitment and retention of post-secondary students particularly from underrepresented minority groups in NOAA mission related STEM fields. Dr. Merchant has been one of the foundational members of the NOAA CREST (2001-2016) and CUNY CREST Institute, and designed and implemented holistic education and training models for successful training and professional development of the student to join the NOAA mission enterprise workforce. During her tenure at the NOAA CREST center, Dr. Merchant has mentored more than 700 early career scientists and students and helped success in their professional careers. Dr. Merchant has been key member to help develop the MoU and create the ReSESS center at City Tech.

**Dr. Valerie Sloan (Co-PI)** is a senior education specialist at the National Center for Atmospheric Research, and the Director of the GEO REU PI Network. She has taught geoscience courses at the University of Colorado at Boulder, the University of Denver, and the University of Nebraska at Omaha, and directed an internship program, RESESS, for three years. At NCAR, she manages and teaches science communication workshops for students ranging from high school through graduate school, supports Postdoctoral career development, and helps with the strategic planning of Education and Outreach at NCAR. As a part of the NCAR Education and Outreach team, Dr. Sloan has been providing evaluation and grant-writing support to various PIs and programs. Since 2011, Dr. Sloan has fostered the development of the GEO REU community through organizing biannual workshops, an email listserv, telecons, and sessions at large annual meetings for REU PIs and managers.

**Dr. Kevin Chu (Consultant)** recently retired from a 25-year career in the US Government, first at the US State Department, then at the National Marine Fisheries Service. During that time, he worked on international, national and regional ocean conservation issues such as whaling, right whale conservation, lobster fishery management and endangered salmon protection. In his career, Dr. Chu chaired or served as rapporteur for numerous international meetings and workshops, including for committees of the International Whaling Commission and the Commission for the Conservation of Antarctic Living Marine Resources. Since his retirement, he has been working through the Sea Education Association to facilitate and report on conversations between fishermen and an offshore wind development company, with the goal of helping each side better understand the other's perspective. He has a Ph.D. in marine biology and served for a time as the Academic Dean at the Sea Education Association.

**Ms. Julia Rivera (Program Manager)** is an Adjunct Professor of Mathematics at City Tech. She has served as a faculty and staff member in the Math Department and CUNY Start Program at New York City College of Technology, Hostos Community College (HCC) and Borough Manhattan Community College (BMCC) since 2017. She received her B.S in Math Education from City Tech and will be going for her Master's Degree. She is also a peer leader for math in City Tech and has taught preparatory workshops in math. Ms. Rivera is also the project manager for the NSF REU grant and NSF IUSE GEOPATH grant. She has helped conduct research with her colleagues and has attended conferences where she presented research on Peer Led Team Learning (PLTL) and STEM disciplines of undergraduate students based on gender, race, and first-generation status for the NSF REU and IUSE GEOPATH grant.

**Dr. Valerie Were (Keynote Presenter)** is the Social Science Lead at the National Oceanic and Atmospheric Administration's Cooperative Science Center for Earth System Sciences and Remote Sensing Technologies. She is responsible for ensuring that the Center's research, education, and training have a positive societal impact and inform decision-making. Before joining the Center, Dr. Were was a contractor on the Chief Economist's Team at NOAA. She holds a B.S. in Watershed Science from Utah State University and an M.S. and Ph.D. from the University of Minnesota in Water Resources Science and Natural Resources Science and Management, respectively.

**Dr. Monica Berger (Workshop Presenter)**, Associate Professor, has served as a faculty member in the Library Department at New York City College of Technology, City University of New York (CUNY), since 1999. She received her M.S. in Library Service from Columbia University and her M.A. in Liberal Studies from the CUNY Graduate Center. Her research focuses on scholarly communication and she is currently writing a scholarly monograph on her research focus, predatory publishing, for the Association of College and Research Libraries. She has published and presented on various aspects of scholarly communication and open access. Recent articles and presentations have focused on how open scholarship can help mitigate climate change as well as how undergraduate researchers benefit from sharing their work in CUNY's open access institutional repository, Academic Works. Prof. Berger leads efforts on campus related to promotion of open access and she manages Academic Works. She provides workshops related to scholarly publishing, open access, and other topics to faculty and students. She is honored to serve on the CUNY Scholarly Communications Committee which provides guidance to the university. Lastly, Prof. Berger is a passionate advocate for equity in scholarly publishing and is thrilled to be able to apply her knowledge and skills "on the ground," directly benefitting her campus community.

**Dr. Alexander Gates (Workshop Presenter)** is a Distinguished Service Professor and former Vice Chancellor at Rutgers University, Newark. He has been at Rutgers University for 32 years and served as Chair of Earth & Environmental Sciences for 19 of those years. Dr. Gates earned his PhD from Virginia Tech as a Structural Geologist with specialization in faults and fault processes. Gates worked as an Exploration Geologist for Chevron, USA and a Senior Scientist for the New York State Geological Survey. He has extensive experience in Geoscience Education and STEM education especially for students from minority groups who are traditionally underrepresented in STEM. He is the originator, Executive Director and PI of the award-winning Garden State LSAMP. This project is in its 11th year and includes the collaborative Northern New Jersey Bridges to the Baccalaureate composed of 5 community colleges. Gates has served as PI on more than \$21 million in external grants and was part of more than \$28 million in total grants. He has run numerous major programs including NSF GK-12, S-STEM, REU and OEDG II. He is the author of 6 books and 79 professional papers and edited 8 professional volumes. He has received 24 professional awards including White House recognition for the garden State LSAMP. He has served as a panelist for the National Science Foundation on more than a dozen occasions.

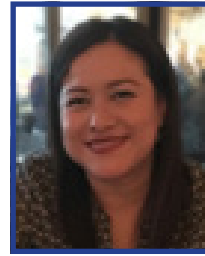
**Rebecca Haacker (Workshop Presenter)** serves as the Director of Education and Outreach for the National Center for Atmospheric Research (NCAR) in Boulder, CO. She leads NCAR's education efforts in public outreach, student internships, and postdoctoral mentoring and guides NCAR's strategic investment in education and community engagement. Prior to 2017, she ran the SOARS program which is dedicated to broadening participation in the geosciences. In 2014, Rebecca received the UCAR Outstanding Accomplishment Award for Diversity for her work expanding the SOARS program and leading a sea change towards more inclusive practices in geoscience education. Today, Rebecca directs and oversees well-known programs including the Advanced Study Program, the NCAR Undergraduate Leadership Workshop, and the new Early Career Faculty Innovator Program. Rebecca is respected in the geoscience community for her work in science education, diversity, and inclusion.

**Dr. Reneta D. Lansiquot (Workshop Presenter)** is Professor, Founding Program Director of the Bachelor of Science in Professional and Technical Writing, and Director of the Honors Scholars Program at New York City College of Technology of the City University of New York, where she earned an AAS in Computer Information Systems and a BTech in Computer Systems. She earned a MS in Integrated Digital Media at Polytechnic University and a PhD in Educational Communication and Technology at New York University. Her recent books include *Interdisciplinary Pedagogy for STEM: A Collaborative Case Study* (2016); *Technology, Theory, and Practice in Interdisciplinary STEM Programs: Connecting STEM and Non-STEM Approaches* (2016); *Interdisciplinary Place-Based Learning in Urban Education: Exploring Virtual Worlds* (2018); and *Interdisciplinary Perspectives on Virtual Place-Based Learning* (2019). Her forthcoming book is entitled *Interdisciplinary Team Teaching: A Collaborative Study of High-Impact Practices*.

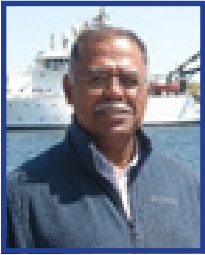
# WORKSHOP PARTICIPANTS



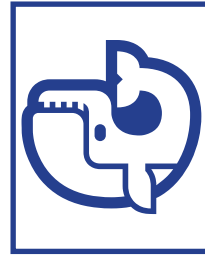
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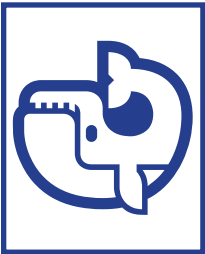
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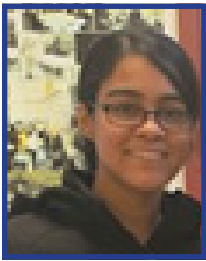
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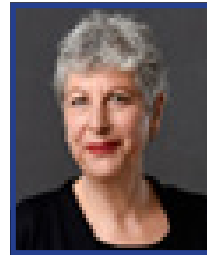
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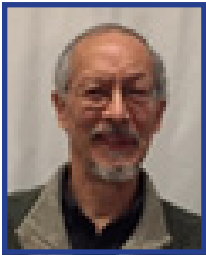
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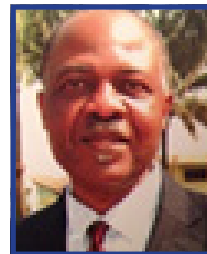
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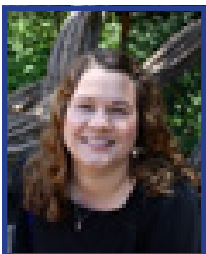
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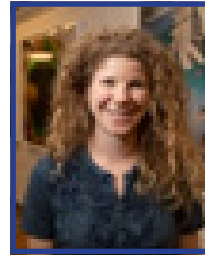
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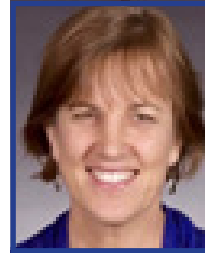
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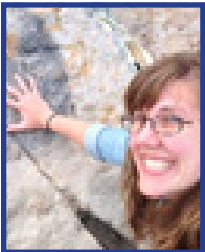
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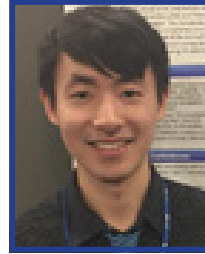
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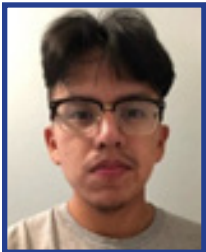
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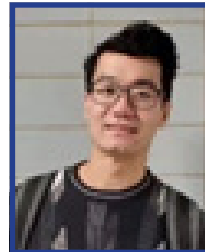
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## A special thanks to:

President Russell K. Hotzler, Prof. Melanie Villatoro, Prof. Sandie Han, Prof. Diana Samaroo, Laura Yuen-Lau, Tasha Rhodes, Adam Walker, Asha Ballard, Lamia Mahreen, Lubosh Stepanek, Shawn Beatty, and Clara Johnson

Program designed by Christopher Navarrete



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