

PARTICIPANTS



Muhammad Omar Afzaal

Ph.D. Candidate

Muhammad Omar Afzaal is a Ph.D. candidate in Political Science at Brown University. He studies interstate escalation, nuclear signaling, and battlefield brinkmanship. Motivated by the puzzle of why enduring rivals experience violent conflict occasionally but not consistently, Omar's doctoral research explains the variation in the choice to escalate, engaging the primary case of Pakistan and distinguishing escalation dynamics in contested territory, along with comparative cases of India, Israel, the US, and Ukraine. Omar is the current 2022/23 USIP-Minerva Peace and Security Scholar at the United States Institute of Peace, besides being a graduate affiliate of the Watson Institute for International Affairs and the Saxena Center for Contemporary South Asia at Brown University. He has conducted research for Oxford University, Harvard University, and the United Nations University (Maastricht). He also researched U.S. nuclear proliferation financing and sanctions for the Bill and Melinda Gates Foundation project on "Countering the Financing of Terrorism" launched at the World Bank in 2017. Omar holds a B.A. in Economics from Grinnell College and a M.A. in Political Science and a Masters in Public Affairs both from Brown University. Omar studied civil-military decision-making and nuclear strategy from Harvard University via the Brown-Harvard program.



Ali Alkış

Ph.D. Candidate

Ali Alkış is the World Institute for Nuclear Security (WINS) Ambassador to Türkiye and a PhD candidate at Hacettepe University, Türkiye. In addition, he is a Research Affiliate and the Gender Champion at the Odesa Center for Non-proliferation. Formerly, he was a Nuclear Scholar in the UK's Nuclear Security Culture Programme, implemented by the King's College, London. His research interests are nuclear security, non-proliferation and nuclear terrorism, as well as Turkish nuclear and foreign policies. He is an active contributor to the nuclear security community, promoting collaboration via knowledge sharing, participating in various nuclear security related workshops, events, and meetups, as well as publishing in national, regional, and international forums. He has various articles, book chapters, interviews and op-eds with key publishers such as the Bulletin of Atomic Scientists, the International Journal of Nuclear Security, the Journal of Nuclear Sciences, the Stimson Center and the EU Non-Proliferation and Disarmament Consortium.

Teiju Aoyagi

Master's Student

Teiju Aoyagi is a first-year Master of Law and Diplomacy candidate at Fletcher School at Tufts University. His research interests and professional background center around defense policy and security circumstances around East Asia, particularly focusing on the US extended deterrence in East Asia, including its nuclear weapons. Now he is researching the effect of China's increment of nuclear stockpiles on extended deterrence.



Robert Baker

Policy Analyst

Robert Baker is a policy analyst and an AAAS Science and Technology Policy Fellow at the Countering Weapons of Mass Destruction Office in the Department of Homeland Security. At CWMD he supports the radiological and nuclear portfolio, including nuclear forensics. He was previously a postdoctoral research associate at Ohio University where his research focused on calculating nuclear scattering observables from first principles and uncertainty quantification. He earned a Ph.D. in physics from Louisiana State University.



David Bernstein

Postdoctoral Research Associate

David Bernstein is a postdoctoral research associate in Los Alamos National Laboratory's (LANL) X-Theoretical Design (XTD) division, a division of LANL that explicitly serves as a national resource for all aspects of nuclear weapons physics and design. His research is on computational plasma physics and radiation transport. His projects include developing a schema for making plasma simulations more efficient, and modeling radiation transport experiments on the Z Machine (a pulsed power facility located at Sandia National Laboratory). In addition to his technical work, David has an interest in nuclear and defense policy, and aspires to contribute to LANL's active role in the field. Before joining LANL, David attended Purdue University where he received his B.S. in physics and mathematics. He then attended the University of Iowa where he received his Ph.D. in computational and theoretical plasma physics.



Ian Joseph Brackbill

Ph.D. Candidate

Hailing from a small town in Pennsylvania, Joe earned his bachelor's degree in biological chemistry at Dartmouth College in New Hampshire before beginning his doctoral studies at the University of California, Berkeley. At UC Berkeley, Joe transitioned from biological to synthetic inorganic chemistry, focusing on the synthesis and characterization of molecular complexes with new types of linkages between uranium and the heavy group 14 elements, like silicon and germanium. In his free time, Joe loves exploring the natural beauty of the Bay Area by running, hiking, and rowing. He also enjoys playing his cello and guitar.



Laura Rose Brown

Ph.D. Candidate

Laura Rose Brown is a Ph.D. Candidate at the University of Leeds and a Policy Fellow at the UK-based non-proliferation and disarmament think-tank, BASIC. Laura Rose's research explores the recent trend to 'gender' nuclear weapons policy. Her project explores the various approaches to bringing gender into nuclear policy with a view to understanding the impact of this work. In collaboration with BASIC, Laura Rose is developing policy relevant outputs related to her scholarly research. She is published in the Journal of International Affairs. Besides her PhD research and policy engagement, Laura Rose is the Communications Officer at the European Journal of International Security (EJIS) and the Centre for Global Security Challenges. Laura Rose holds an MA in International Security with cum laude honours from Sciences Po Paris, an MA in Social Research from the University of Leeds and a BA in Political Science from Sciences Po Paris.



Robert Callahan

Master's student

Robert Callahan is an MA candidate at the University of Chicago's Committee on International Relations. He holds an MS from the University of Illinois and a BA *magna cum laude* from Cornell University, where he was also an Army ROTC Distinguished Military Graduate. He recently transitioned to the Army Reserve after nine years of Active Duty, and his time in uniform featured service throughout Central America and in Afghanistan. He is a Pacific Forum Young Leader, a member of the Military Writers Guild, and a Student Fellow of the Inter-University Seminar on Armed Forces and Society.



Tracy Edwards

Ph.D. Student

Tracy is a 3rd year Ph.D. student at Michigan State University studying nuclear physics and radiochemistry. Her research is focused on the perturbed angular correlation (PAC) of radioactive metals to characterize chemical processes using gamma spectroscopy. Her research at the Facility for Rare Isotope Beams (FRIB) directly applies to the DOE's defense nuclear nonproliferation research and development efforts. Outside of her academic work, she is a member of the National Society of Black Physicists (NSBP) and the American Physical Society (APS) Physicist Coalition for Nuclear Threat Reduction. Most recently, Tracy participated in Nuclear Science Day on Capital Hill, advocating for the proposed DOE nuclear science budget for the fiscal year 2024. Tracy holds a M.S. in Physics from Michigan State University and B.S. in Physics from Hampton University.



Mike Emmons

Engineer

Mike Emmons is a Deputy Program Manager at Lawrence Livermore National Laboratory supporting one of the stockpile's major nuclear modernization programs. While he currently supports stockpile stewardship in a project management role, his experience includes leading large scale engineering tests and analyses of stockpile systems that underpin assertions about performance and safety. Prior to that work, Mike performed research and development on novel sensor technologies to improve data captured during large scale warhead testing. Mike received his PhD, MS, and BS in Mechanical Engineering from University of California, Los Angeles. His dissertation was in developing fiber optic sensors for smart structure applications.



Decker Eveleth

Graduate Student

Decker Eveleth is a graduate student at the Middlebury Institute of International Studies in Monterey California and a graduate research assistant at the James Martin Center for Nonproliferation Studies working on the open-source intelligence team. He specializes in utilizing satellite imagery to assess ballistic and cruise missile forces in the Middle East and East Asia. He is a recipient of the National Science Foundation's Graduate Research Fellowship, has written for the United Nations Institute for Disarmament Research, and is currently participating in CSIS's Nuclear Scholars Initiative. His primary research focus is tracking the People's Republic of China's land-based missile arsenal with satellite imagery. His work on tracking solid-fueled nuclear missile silos in China was featured on the front page of the Washington Post. He is a graduate of Reed College in Portland, Oregon.



Emily Faux

Ph.D. Candidate

Emily is in her first year of PhD candidacy at Newcastle University, UK. Her thesis, *Do Nukes go POP?*, navigates contemporary nuclear culture - investigating the narratives, images, and discourses dominant in popular film, TV, and video game. Emily is a teaching assistant at the University of Leeds and a Contributor for *HighlyNRiched*, for which she has works under a *Ploughshares* grant to create original and open-access teaching materials which centre feminism in nuclear pedagogy. Emily was a mentee of the EU's Young Women in Non-Proliferation and Disarmament program, through which she was invited to deliver the closing remarks at last year's EU Non-Proliferation and Disarmament annual conference. Emily was awarded a scholarship to study MA Political Communication, and graduated top of her BA International Relations cohort. She has received prizes for her dissertation '*Television, Security, and Vigil: nuclear weapons in popular culture*', and has presented papers at national and international conferences.



Lee Finewood

Physical Scientist

Lee Finewood has over 25 years of experience working in science and engineering, as well as technology policy. His last 15 years have focused on nuclear deterrence, nonproliferation and counter terrorism programs in addition to enabling broader National Security missions across the interagency. Lee currently serves in the U.S. Department of Energy's National Nuclear Security Administration in a variety of roles and is presently detailed to the office of counter-terrorism and counter-proliferation to assist the interagency Ukraine Task Force. His dedicated work in the interagency has been recognized by partners at DoD's SOCOM and the CIA. Beginning his career as an engineer in both Denver and Boston before returning to graduate school where he worked as a Science Advisor to the NY State Attorneys General and then a Fellow of the National Academies of Science he has worked in private industry, as well

as state and Federal governments. Prior to his Federal service, he supported DHS, DoD and DOE as a senior consultant at Booz Allen Hamilton. Mr. Finewood has a Bachelors and Masters of Science in the Physical Sciences as well as a Bachelors in Psychology from the State University of New York and a Masters in Strategic Security Studies from National Defense University.



Matthew Gentzel

Program Officer

Matthew co-leads Longview Philanthropy's program on nuclear weapons policy. His prior work spanned emerging technology threat and policy assessment, with a particular focus on how advancements in AI may shape the future of nuclear strategy, influence operations, and cyber attacks. He has worked as a policy researcher with OpenAI, as an analyst in the DoD Innovation Steering Group, and as a director of research and analysis at the U.S. National Security Commission on AI. Matthew holds an MA in strategic studies and international economics from Johns Hopkins SAIS and a BS in fire protection engineering from the University of Maryland.



Valeriia Hesse

Researcher

Valeriia Hesse is a researcher at the Odesa Center for Nonproliferation (OdCNP), research consultant at Open Nuclear Network (ONN), and a management and research consultant at Atomic Reporters (AR). Her professional focus is nuclear diplomacy, including international organizations and regimes in nonproliferation, nuclear risk reduction, security, arms control, and disarmament. Ms. Hesse was a visiting researcher at the James Martin Center for Nonproliferation Studies (CNS), a consultant at the World Institute for Nuclear Security (WINS), and an intern at the Division of Concepts and Planning at the International Atomic Energy Agency (IAEA) Department of Safeguards and Carnegie Endowment for International Peace. Valeriia obtained her Master's degree in Nonproliferation and

International Security from the University of Georgia (USA) as a Fulbright scholar and has a Bachelor's and a Master's in International Relations from Odesa I.I. Mechnykov National University (Ukraine). She is a certified PRINCE2 project manager. Ms. Hesse is the Annual Meeting Plenary Committee Chair at the Institute for Nuclear Materials Management (INMM), and a member of Women in Nuclear (WiN) IAEA Executive Committee and Black Sea Women in Nuclear Network (BSWN).



Yeseul (Woo) Hoell

Ph.D. Candidate

Yeseul Hoell is a PhD candidate in the Department of War Studies at King's College London. Her research focuses on the role of middle powers in nuclear crises, nuclear energy and nonproliferation policy as well as Korean peninsula issues. She is also a Developing Scholar at the Hudson Institute, as well as a graduate teaching assistant at King's College London, delivering modules on "contemporary security issues", "sanctions and diplomacy", and "conflict and diplomacy". At King's College London, Yeseul was also a research assistant on a UK government funded project researching social media as a tool in defence contexts. Before moving to London, Yeseul was a journalist for South Korean and US media outlets and as a fellow at the East West Center, at the Pacific Forum and at the Harry S. Truman Institute.



Jungjae Hong

Ph.D. Student

Jungjae Hong is a Ph.D. student in the Department of Political Science at the University of California, Santa Barbara. He has broad interests in international security with a focus on the causes and consequences of nuclear proliferation, nuclear latency, and nuclear extended deterrence. He holds an M.A. in International Relations from Seoul National University and a B.A. in English Language and Literature from Pusan National University. He was previously a research fellow at the Korea

Advanced Institute of Science and Technology (KAIST)'s Nuclear Nonproliferation Education and Research Center. Prior to joining the University of California, Santa Barbara, he was a tenured administrator in international affairs at Seoul National University during which time he participated in the Fulbright's Korean International Education Administrators Program.



Samanvya Hooda

M.A. Candidate

Samanvya Hooda is an M.A. Candidate in Security Studies at Georgetown University and Defense Analysis Research Assistant at CSET (Georgetown). He is a 2023 CSIS Nuclear Scholar and has also worked as a graduate research assistant to Prof. Caitlin Talmadge and Prof. Keir Lieber. Prior to his studies at Georgetown, he worked at the Institute of Chinese Studies in New Delhi, researching conventional deterrence, China's military, and the China-India-Pakistan nuclear triangle. Samanvya received a B.A. (International Relations) with a minor in Peace and Conflict Studies from the Symbiosis School for Liberal Arts, India. His research interests lie in escalation dynamics, nuclear trilemmas, emerging technologies, and Indo-Pacific security.

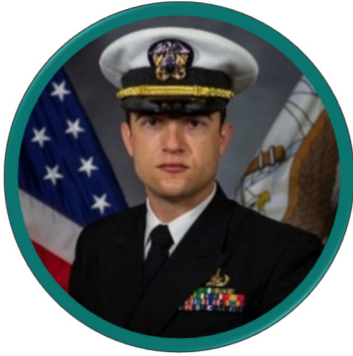


Kwangchae Im

Graduate Student

Kwangchae Im is a graduate student of the concurrent master degree program in Public Policy and Nuclear Engineering at UC Berkeley. He is from the Republic of Korea and served as an officer in the Korean Army. Prior to coming to UC Berkeley, he joined diverse military missions not just including national defense missions inside the Korean Peninsula but also UN Peacekeeping Mission in Lebanon. Kwangchae received B.A's degree in International Relations from the Korea Military Academy. His research interests include nuclear security, nuclear nonproliferation and North Korea's nuclear strategy. Currently, he works as a research associate at the Center for

Global Security Research (CGSR) at Lawrence Livermore National Laboratory.



Scott Kendrick

Master's Student

Scott Kendrick was born and raised in San Diego (East County). He graduated from the University of Arizona in 2012 with a Bachelor of Science in Aerospace Engineering and earned his commission through the ROTC program. He is currently serving as an Explosive Ordinance Disposal Officer in the United States Navy and has been previously stationed in Apra Harbor, Guam; Pearl Harbor, Hawaii; Manama, Bahrain; and Rota, Spain. He was selected for the Fleet Scholarship Enhancement Program and is currently pursuing his Master of Science in Nuclear Engineering at the University of Tennessee and conducting his research through the Oak Ridge National Laboratory.



Alexandra (Sasha) Kennedy

Ph.D. Student

Alexandra (Sasha) Kennedy is a current PhD student at the University of California, Berkeley working in the SALT group with Professor Raluca Scarlat and advised by Dr. Marisa Monreal from Los Alamos National Laboratory. After receiving her B.S in Chemistry from Carnegie Mellon University, Sasha's research at Berkeley focuses on elemental identification and quantification through spectroscopical and elemental analysis techniques of molten salts for nonproliferation and safeguard purposes. Outside of research Sasha enjoys playing tennis, running, climbing, music (specifically singing opera), and baking.



Elizabeth (Libby) Kos

Program Coordinator

Elizabeth Kos is a program coordinator with the Project on Nuclear Issues in the International Security Program at the Center for Strategic and International Studies (CSIS). She is also a master's student at the Johns Hopkins School of Advanced International Studies (SAIS), where she studies international relations with a focus on security, strategy, and statecraft and the Middle East. Her research focuses on US-Iran relations, strategies to limit Iran's nuclear program, and nonproliferation policy. Elizabeth holds a B.A. with honors in international studies from Johns Hopkins University. She speaks Farsi and French.



Markuss Kozlinskis

Master's Student

Markuss Kozlinskis is an International Security master's student at Sciences Po in Paris, where he specialises in Diplomacy and Intelligence studies. As a Security and Defence researcher at Baltic Security Foundation (BSF), he conducts research projects addressing regional security challenges such as Russian nuclear capabilities and nuclear coercion. He has also represented the BSF in Track 2 Dialogue related to these matters. Additionally, he serves as a Research Assistant at the International Research Centre, collaborating on a project regarding Latvia's upcoming candidacy for the UN Security Council seat. He holds a bachelor's degree in Law and Diplomacy from the Riga Graduate School of Law.



Madeline Lockhart

Ph.D. Student

Madeline Lockhart is a Ph.D. student in the Department of Nuclear Engineering at North Carolina State University. She was awarded a Nuclear Nonproliferation and International Safeguards (NNIS) fellowship by the National Nuclear Security Administration in 2021. She is working with a multi-university, multi-laboratory team to develop new neutron multiplicity counting methods to assay uranium-233 and -235 in mixed oxide nuclear fuel materials. Throughout her undergraduate and graduate studies, she has done research in the Nuclear Engineering and Nonproliferation Division at Los Alamos National Laboratory. She also spent time at the Department of State in the Bureau of Arms Control, Verification, and Compliance in 2019. Madeline has a Bachelor of Science in Physics from Texas Tech University.



Wendell Misch

Scientist

Wendell Misch earned his Ph.D. in physics at UCSD. His emphasis was theoretical nuclear and particle astrophysics, and he maintains an active research profile in this field. From UCSD, he went on to spend four years at Shanghai Jiao Tong University as a postdoc, and from there spent three years as a postdoc at Los Alamos National Laboratory in the Theoretical Division. As this second postdoc progressed, he became exposed to and participated in weapons physics, which ultimately led to a staff position in LANL's Primary Physics group. As a staff member in XTD-PRI, he has contributed to the B61 assessment, and he is currently the primary design physicist for an upcoming hydro test.



Johannes Nordin

Junior Research Fellow

Johannes Nordin is a Junior Research Fellow at the Stockholm-based Institute for Security and Development Policy (ISDP) and an Associate Junior Research Fellow at the International Development Research Network (IDRN) in Paris. At ISDP's Strategic Consultancy, Johannes follows geopolitical developments across Eurasia. His main research interests are centered around EU tech and energy policy as well as Sino-European relations. He holds an MSc in International and European Relations and a BA in Political Science and Economics from Linköping University. His MSc thesis explored EU involvement in North Korean denuclearization following an internship at ISDP's Korea Center. He is currently contributing to a book project for the Swedish Defense Association and recently participated in the 2023 ESARDA Course on Nuclear Safeguards and Non-Proliferation, organized by the European Commission's Joint Research Center.



Chris H. Park

Master of Arts Candidate

Chris H. Park is an MA candidate at the Johns Hopkins School of Advanced International Studies (SAIS) focusing on security and strategy in Northeast Asia. He is a graduate research assistant for former Acting Director of Central Intelligence John McLaughlin and at the SAIS U.S.-Korea Center. His work centers on U.S. extended deterrence, nuclear bargaining, and the U.S.-South Korea alliance. Chris has written on these topics for publications including *The Diplomat*, *NK News*, and *Asia Unbound* at the Council on Foreign Relations. He holds a B.A. in International Studies from Johns Hopkins University where he graduated Phi Beta Kappa.



Ryan Peabody

Analyst

Ryan Peabody is an Analyst at Lawrence Livermore National Laboratory (LLNL) with the Global Material Security program. At LLNL his work focuses mostly on assisting international partners with the development of a framework and regulations for nuclear and radiological security, but he also has a professional interest in the topics of insider threat mitigation, and nuclear security culture. His projects support of a range of sponsors including the International Atomic Energy Agency, National Nuclear Security Administration, and the Department of Energy. He holds a Master of Arts (MA) in international affairs from the Bush School of Government and Public Service at Texas A&M where he focused on nuclear nonproliferation and US grand strategy.



Hollis Rammer

Analyst

Hollis Rammer is an analyst at Los Alamos National Laboratory focusing on national security and nuclear safeguards. She has held internships and graduate research positions including at Brookhaven National Laboratory, the Arms Control Association, and the James Martin Center for Nonproliferation Studies. She earned her MA in nuclear nonproliferation and terrorism studies at the Middlebury Institute of International Studies and her BA from Wellesley College.



Rahul Rawat

Ph.D. Candidate

Rahul Rawat is a second-year Ph.D. scholar at the Diplomacy and Disarmament division, CIPOD, School of International Studies, Jawaharlal Nehru University, New Delhi. Previously, he worked as a Research Associate at the School of Internal Security, Defence and Strategic Studies, Rashtriya Raksha University, Gujarat. His areas of interest include security studies, India's

foreign and security policy focusing on Af-Pak region, the neighbourhood, Indo-Pacific, technology, and national security.



Shawn Rostker

Master's Candidate

Shawn Rostker is a second year Master's candidate in the Security Studies Program in the Walsh School of Foreign Service at Georgetown University. He has interned at the Center for Political-Military Analysis where he researched Chinese and Russian nuclear modernization efforts, as well as the ongoing development of the DPRK's weapons program. As an undergraduate, he participated in the DOD-sponsored Hacking for Defense program in which he explored the intersection of various emerging technologies and maritime defense. Most recently, he was a research intern with the Strategic Technologies Program at the Center for Strategic and International Studies where he focused on technology policy and the national security implications of artificial intelligence, quantum information sciences, and other disruptive capabilities. He is currently exploring ways in which artificial intelligence can be safely integrated into NC3 without undermining strategic stability. His professional interests lie in the development of future deterrence strategies and the study of regional nuclear powers' command and control structures.



Jacob Sebastian

Ph.D. Student

Jacob Sebastian is a PhD Student in the Nuclear Engineering Department at the University of California, Berkeley. At UC Berkeley, they work with Dr. Bethany Goldblum and the Bay Area Neutron Group (BANG) on scintillator characterization and fundamental nuclear physics for applications in nuclear security and proliferation detection. Jacob first graduated from North Carolina State University with Bachelors of Science in Mechanical Engineering, Applied Mathematics, and Political Science with a minor in Middle East Studies in

2019. Before coming to UC Berkeley, Jacob worked as a Herbert Scoville Peace Fellow at the Nuclear Threat Initiative. Their research interests include the nexus of technology and policy, particularly related to nuclear security and verifiable disarmament.



Sydney Todorov

Nuclear Operations Officer

Lieutenant Colonel Sydney Todorov is a Nuclear Operations Officer in the U.S. Air Force with expertise in the Minuteman III intercontinental ballistic missile (ICBM) system. Throughout her eclectic and rewarding career, she has had the opportunity to serve as a missileer, instructor, code controller, contingency planner, staff officer, speechwriter, commander, division chief and, now, a PhD student. She just finished her first year of coursework at Vanderbilt University in Political Science with a focus in International Relations. Upon completion of the doctoral program, she will be stationed in Washington, D.C. where she will shape our nation's nuclear policy and military strategy as well as advise senior leaders. She celebrated 15 wild and wonderful years of marriage this year and, when not working or studying, she enjoys spending time outdoors with her husband and their dog, adventuring abroad, and trying/learning new things.



Samuel Owen Webster

Ph.D. Candidate

Owen Webster is a Ph.D. candidate in nuclear engineering at North Carolina State University. He holds a B.S. in Mechanical Engineering, B.S. in Economics, and B.A. in Chinese Studies from the same institution, including a year at Tsinghua University on a Boren Scholarship. Owen's research involves next-generation semiconductor detector materials for nuclear nonproliferation and international safeguards applications under a fellowship with the Department of Energy's National Nuclear Security Administration (NNSA). His current focus is gallium oxide for Cerenkov detection. Currently, he also works for Lawrence

Livermore National Laboratory (LLNL) exploring verification of tritium control regimes for nonproliferation applications. Owen has also researched light-water reactor technodiplomacy on the Korean peninsula as part of a Nuclear Nonproliferation Education and Research Center (NEREC) fellowship, as well as the implications of HEU naval reactor provision to a NNWS through AUKUS as a fellow with the Physicists Coalition for Nuclear Threat Reduction. He also works heavily with the International Campaign to Abolish Nuclear Weapons (ICAN), through which he just returned from Hiroshima after taking part in the G7 Youth Summit. This fall, he will represent the Treaty on the Prohibition of Nuclear Weapons (TPNW) at the United Nations for the agreement's second meeting of states parties.