Stanton Nuclear Security Fellows Seminar

Fellows - Alphabetically by Institution

Abolghasem Bayyenat, BCSIA (bayyenat@gmail.com)

Abolghasem Bayyenat is a Stanton Nuclear Security Postdoctoral Fellow at Harvard University's Belfer Center for Science and International Affairs. He earned his Ph.D. in political science from Syracuse University. His doctoral dissertation examined the logic and political dynamics of Iran's nuclear policymaking from 2002 to 2015. Abolghasem's current research is focused on Iran's nuclear decision-making processes, and Iranian political elites' national security and foreign policy thinking. He is currently developing his doctoral dissertation into a book manuscript and journal articles. More broadly, his research interests are grounded in scholarly and policy debates on the role of state identity in foreign policy and nuclear policymaking, economic sanctions in nuclear non-proliferation, and Middle Eastern international relations.

Prior to pursuing doctoral studies, he worked for several years for Iran's Ministry of Commerce, as part of which he was involved in bilateral and multilateral trade negotiations and researched Iran's foreign trade regime and the multilateral trading system. His writings on Iran's nuclear diplomacy and foreign policy developments can be accessed on his website at www.IranDiplomacyWatch.com.

William d'Ambruoso, BCSIA (wdambruo@bates.edu)

Will is a Stanton Nuclear Security Fellow at Harvard Kennedy School's Belfer Center for Science and International Affairs. His research interests include major war and wartime violence, with special emphasis on norms and beliefs as explanatory factors. During the fellowship, he will be working on a book project that examines previous major wars, and future nuclear ones, as self-

fulfilling prophecies. A second book explaining the recurrence of interrogational torture by the United States since the early 20th Century is under contract with Oxford University Press.

Prior to the fellowship at the Belfer Center, Will was a Visiting Assistant Professor at Bates College in Lewiston, Maine. He completed his PhD in Political Science at the University of Washington, Seattle, in 2016. He lives in Portland, Maine, with his spouse and two children.

Aditi Verma, BCSIA (aditive@mit.edu)

Aditi Verma is a Stanton Nuclear Security Postdoctoral Fellow at the Belfer Center's Project on Managing the Atom and the International Security Program. She is broadly interested in how nuclear technologies specifically and complex technologies broadly—and their institutional infrastructures—can be designed in collaboration with publics such that traditionally excluded perspectives can be brought into these design processes.

Prior to her current appointment, Aditi worked at the OECD Nuclear Energy Agency, where her work, endorsed and funded by policymakers from the NEA member countries, focused on bringing epistemologies from the humanities and social sciences to academic and practitioner nuclear engineering, thus broadening their epistemic core.

Aditi holds undergraduate and doctoral degrees in Nuclear Science and Engineering from MIT. Her doctoral research, funded by the Sloan Foundation and a Spira Fellowship, combined theoretical and methodological resources from design studies and sociology to study how reactor designers make decisions in the foundational early stages of design, particularly those bearing on safety. Aditi has also previously held positions at the International Atomic Energy Agency, Framatome (formerly Areva), and the Center for the Study of Science, Technology and Policy.

Fiona Cunningham, CEIP (fsc@gwu.edu)

Fiona Cunningham is a Stanton Nuclear Security Fellow at the Carnegie Endowment for International Peace in 2020-21. She is also Assistant Professor of Political Science and International Affairs at the George Washington University. Her research interests include nuclear strategy, cybersecurity, and military strategy, with a focus on China and East Asia. Her work has been published or is forthcoming in International Security, Security Studies, and the Texas National Security Review.

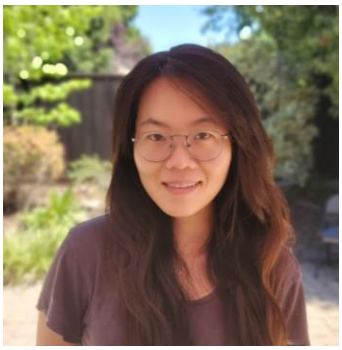
Fiona was formerly a Post-Doctoral Fellow at the Center for International Security and Cooperation at Stanford University, a Pre-Doctoral Fellow in the Cyber Security Project at Harvard's Belfer Center for Science and International Affairs, and a Joint Ph.D. Research Fellow at the Renmin University of China in Beijing. Fiona holds a Ph.D. in Political Science from the Massachusetts Institute of Technology, a Bachelor of Arts in Politics and International Relations from the University of New South Wales, and a Bachelor of Laws from the University of Sydney.

John R. Emery, CISAC (jremery@uci.edu)

John R. Emery is a Stanton Nuclear Security Fellow at Stanford University in the Center for International Security and Cooperation (CISAC). His research interests include ethics of war, historical nuclear wargaming, technology and national security, as well as the impact of quantification and abstraction on ethical decision-making. Current projects are based on archival research at the RAND Corporation in Santa Monica, CA exploring early nuclear wargaming in the 1950s and how contested notions of science and the process of physical wargaming enabled arguments of deterrence and practicality and constrained ethical arguments in nuclear non-use. Specifically, this concrete historical case of new technologies of war and novel methodologies of inquiry offers key insights into the contemporary dilemmas of military AI today.

He was formerly a Tobis Fellow at the Interdisciplinary Center for the Scientific Study of Ethics and Morality at University of California, Irvine. There, he explored the rise of collateral damage estimation algorithms in the U.S. Air Force, and how socio-technical interactions impact ethics of due care in war. Previous work on drones, ethics, counter-terrorism, and just war is published in *Critical Military Studies*, *Ethics & International Affairs*, and *Peace Review*. In 2017-2018 he was awarded the NSF-funded Technology, Law and Society Fellowship to undertake an interdisciplinary study of the impact of AI, Big Data, and blockchain on law and society scholarship. John R. Emery holds a Ph.D. and M.A. in political science from University of California, Irvine and a B.A. in international studies from Gonzaga University in Spokane, WA.

Sulgiye Park, CISAC (sulgiye@stanford.edu)



Sulgiye Park is a Stanton Nuclear Security Fellow at the Center for International Security and Cooperation (CISAC), Stanford University. Her research interests include investigating the front-end of uranium fuel cycle in North Korea, particularly mining and milling of indigenous uranium and potential constraints on DPRK fissile material resources.

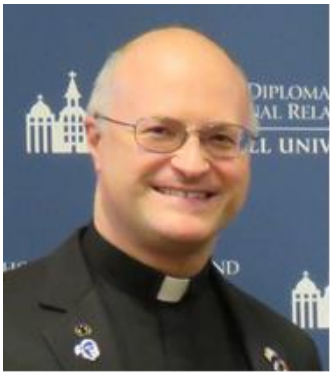
Prior to joining CISAC, Sulgiye Park was a postdoctoral scholar at the Stanford Institute for Materials and Energy Sciences and Geological Sciences, where she investigated materials properties under extreme conditions. She holds a Ph.D. in geological sciences, where her thesis focused on structural behavior of ceramic nuclear waste forms. She developed an interest in nuclear security while researching uranium mines in the DPRK. Her work using geologic analysis to investigate the uranium resources in North Korea has been featured in *Jane's Intelligence Review* and *Science and Global Security*.

Brian Blankenship, CFR (bxb731@miami.edu)

Brian Blankenship is a Stanton Nuclear Security Fellow at the Council on Foreign Relations in Washington, D.C. His research interests include the politics of military alliances, with a focus on bargaining over the distribution of burdens in U.S. alliances, American foreign policy, and international security more broadly.

He is an Assistant Professor in the Department of Political Science at the University of Miami. Previously, he was a postdoctoral fellow at Dartmouth College's Dickey Center for International Understanding. He holds a Ph.D., M.Phil, and M.A. in Political Science from Columbia University, as well as a B.A. in Political Science from Indiana University.

Rev. Brian K. Muzás, CFR (bmuzas@cfr.org)



Brian K. Muzás is undertaking his Stanton Nuclear Security Fellowship at the Council on Foreign Relations in Manhattan. His research interests encompass international security, defense systems, and ethics with a focus on how religious cultural heritage influences nuclear decision making.

Currently the Director of the Center for United Nations and Global Governance Studies at Seton Hall University's School of Diplomacy and International Relations, he has served two terms as Secretary of the NGO Executive Committee, the funnel between UN civil society and the UN Department of Global Communications. He earned a Ph.D. in public policy from the Lyndon B.

Johnson School of Public Affairs at The University of Texas at Austin, both an M.Div. in pastoral ministry and an M.A. in systematic theology from Seton Hall University, an M.S. in aeronautics from the California Institute of Technology, and a B.S.E. in mechanical and aerospace engineering from Princeton University.

Tyler Bowen, MIT SSP (tyler.bowen@yale.edu)

Tyler Bowen is a Stanton Nuclear Security Fellow at M.I.T. He is visiting from Yale University, where he is a Ph. D. Candidate in Political Science. He received his M. Phil. from Yale in 2018 and a B.A. in Political Science from the University of Notre Dame in 2015. His research examines the various ways in which nuclear weapons affect international politics. He is currently working on a dissertation entitled *The Logic of Escalation and the Benefits of Conventional Power Preponderance*. He uses a theory of the limits to the credibility of nuclear deterrence to craft a theory of escalation between different levels of conflict. From this theory, he predicts that the variety of conventional capabilities, or the ability to win at various levels of conventional conflict, shapes bargaining outcomes between nuclear states. He tests this theory using quantitative analysis of nuclear crises as well as case studies of individual crises. This argument has implications for the incentives to maintain conventional power preponderance and for the grand strategic choices of the United States.

Tyler's interests in the limits of nuclear deterrence and the continued benefit of conventional military power also inform his research on the nuclear taboo. Together with co-authors, he uses a series of choice and survey experiments to argue that the public exhibits a weak taboo against the use of nuclear weapons. This can constrain policymakers' decisions to use nuclear weapons even though the public thinks about nuclear use in a rational way.

Heather Williams, MIT SSP (hww@mit.edu)

Heather Williams is a Stanton Nuclear Security Fellow at MIT. She is visiting from King's College London, where she is a Lecturer in the Defence Studies Department and Centre for Science and Security Studies. Her research project focuses on asymmetric arms control, particularly how arms control can incorporate emerging technologies, such as cyber and artificial intelligence. Her other research areas of interest include social media and nuclear escalation, trust in International Relations, the Nuclear Non-Proliferation Treaty (NPT) and nuclear institutions, and balancing deterrence and disarmament, particularly from the perspective of European states.

Heather is also a Senior Associate Fellow at the European Leadership Network, an Associate Fellow at the Royal United Services Institute, and a member of the Wilton Park Advisory Council. She is an adjunct Research Staff Member at the Institute for Defense Analyses (IDA), where she has worked since 2008. Heather has a PhD in War Studies from King's College London, an MA in Security Policy Studies from The George Washington University, and a BA in International Relations and Russian Studies from Boston University.

Yeajin Yoon, MIT SSP (yeajin_yoon@hks.harvard.edu)

Yeajin Yoon is a Stanton Nuclear Security Fellow at Massachusetts Institute of Technology's Security Studies Program and an Associate with the Project on Managing the Atom at the Belfer Center for Science and International Affairs at Harvard Kennedy School. She has recently completed her doctorate at Oxford University's Blavatnik School of Government. Previously, she was a predoctoral fellow at the Belfer Center's International Security Program and Project on Managing the Atom and Stanford University's Center for International Security and Cooperation. She received a Master of Public Policy from Oxford University and a B.A. in Political Science with honors from Stanford University. Her research examines the evolution of trilateral cooperation among the Republic of Korea, Japan, and People's Republic of China, with a focus on nuclear security.

Mayumi Fukushima, RAND (mayumif@mit.edu)

Mayumi Fukushima is a postdoctoral Stanton Nuclear Security Fellow at RAND Corporation. Her research interests include international security issues in East Asia, security alliances, and nuclear nonproliferation, while she has been trained both in security studies and international political economy.

She holds a Ph.D. in Political Science from Massachusetts Institute of Technology (MIT). Her PhD dissertation, "Exploitative Friendships: Manipulating Asymmetric Alliances," explains the origin of different strategies junior allies employ to "manipulate" their materially superior alliance partner into offering assistance they seek. It contributes to the literature by proposing a new paradigm for assessing costs associated with security commitments to other states.

She has a long experience of serving as a deputy director at the Japanese Ministry of Foreign Affairs primarily responsible for US-Japan cooperation to address various security challenges including China's military modernization and North Korean and Iranian nuclear weapons programs. She received her B.A. from Keio University and her master's degrees both from Sciences-Po Paris and Harvard University. She is fluent in English, French, and Japanese and can read in Chinese. Her research has been supported by many organizations including MIT's Center for International Studies and Political Science Department, the Stanton Foundation, the Smith Richardson Foundation, Yale University's International Security Studies Program, the Murata Science Foundation, and the Ito Foundation for International Education Exchange.

Sayuri Romei, RAND (sayuri.romei@gmail.com)

Sayuri Romei is a Stanton Nuclear Security Fellow at the RAND Corporation in Washington, D.C. Her research interests include security issues in the Indo-Pacific, with a focus on U.S.-Japan relations, Japan's nonnuclear policy and U.S. extended nuclear deterrence. Prior to that, she was a Public Policy Fellow at the Wilson Center, the Fellow for Security and Foreign Affairs at Sasakawa Peace Foundation USA, and a MacArthur Nuclear Security Fellow at Stanford University's Center for International Security and Cooperation. Her doctoral work focuses on Japan's nuclear hedging posture and examines how the country started and maintained such a stance throughout the postwar era. She holds a BA in English Literature from Sorbonne University, a BA in International Relations from the University of Roma La Sapienza, an MA in International Relations, and a PhD in Political Science from Roma Tre University. Her work was featured in the Washington Post, Kyodo News, The Air Force Journal of Indo-Pacific Affairs, among others, and she appeared on BBC World News, PBS NewsHour, NK News, and the National Journal to comment on security issues in East Asia. Romei speaks Japanese, Italian, and French.

Edward Jenner, Texas A&M University (ejenner@uci.edu)

Edward Jenner is a Stanton Nuclear Security Fellow at Texas A&M University. Edward's research interests include nuclear nonproliferation, the nuclear fuel cycle, and climate change with his primary focus on the risk of proliferation via climate change and how nuclear energy can mitigate it.

Previous to his postdoctoral fellowship, Edward was a senior reactor operator at the University of California, Irvine. Edward trained undergraduates to receive their reactor operators' license, performed regular facility maintenance, surveillance, and security items, and conducted

irradiations for research purposes. Edward received his Ph.D. from the University of California, Irvine in chemical engineering, focusing on spectroscopic monitoring of lanthanides for used nuclear fuel. He received undergraduate B.S. in both physics and chemical engineering from the University of Arkansas.