

PPNT 2012 Participants



Paris E. Althouse is the Project Manager for the Global Initiatives for Proliferations Prevention (GIPP) Program for Lawrence Livermore National Laboratory. GIPP is a nonproliferation program funded under the U.S. Department of Energy NA-24 which establishes partnerships with foreign institutes and their scientists, U.S. industry partners and the National Laboratory scientific community. Paris' role as the Project Manager is to identify, create, select, and vet technical projects which are of value to national security, and that also provide the benefit of introducing the former weapon scientists/engineers into non proliferation fields. This collaborative relationship provides benefits to the USG through advanced scientific

research and the promotion of the non proliferation culture and practices to the international community.



Joonbum Bae is a PhD student in the Department of Political Science at the University of California, Los Angeles. His primary field of research is international security, in particular questions regarding nuclear weapons, foreign policy decision making, and crisis bargaining. His dissertation examines why states adopt different responses to the nuclear programs of rivals and what the domestic political repercussions are when rival states gain nuclear capability. He received his BA and MA from Seoul National University.



Geoffrey Bickford is a first year doctoral student in Nuclear Engineering at the University of Florida, Gainesville, FL where he received his Master of Science in Nuclear Engineering in Dec 2011. He received his Bachelor of Arts in Linguistics from the University of CA, Berkeley in 1988 and subsequently served in the United States Navy as a Line Officer and an Explosive Ordnance Disposal Officer. His research interests include but are not limited to development of new detector technologies for neutron spectrum analysis and possible applications of luminescent detectors for energy spectrum analysis of mixed radiation fields. He is interested in nuclear nonproliferation applications for nuclear detection technology.



Rosella Cappella is a post-doctoral fellow at the Dickey Center for International Understanding at Dartmouth College. She just completed her dissertation at the University of Pennsylvania titled *The Political Economy of War Finance*. Her research interests include but are not limited to the political economy of national security. She is looking forward to studying the political economy of nuclear weapons.



Liz Dallas received both her Bachelor's degree in Chemistry and her Master's degree in Analytical Chemistry from the Georgia Institute of Technology. Following her education, she applied her skills as a researcher, writer and editor to two important texts. The first was the National Nuclear Security Agency project to produce the industry guideline text *Environmental Monitoring and Surveillance*. The second was the Department of Energy-sponsored textbook *Radioanalytical Chemistry*. Work on these projects provided long-term exposure to many radiochemists and nuclear physicists. The constructive and collaborative nature of the work ultimately led Ms. Dallas to refocus her research interests on the science of and issues surrounding the use of nuclear energy and materials.

Ms. Dallas is currently pursuing a PhD in International Affairs, Science and Technology at the Sam Nunn School, with a minor in Nuclear and Radiological Engineering. Her research interests include nuclear fuel cycle issues, nuclear proliferation and international negotiations and treaties. She has just begun work with the Comprehensive Test Ban Treaty Organization (CTBTO) in Vienna, to help the On-Site Inspection Division to integrate the mobile radionuclide units into the OSI training program.



Christine Egnatuk is a DOE/NNSA Nuclear Nonproliferation and International Safeguards Fellow and Ph.D. candidate in the Nuclear and Radiation Engineering Program at The University of Texas at Austin. Her dissertation is focused on radioargon production methods. Egnatuk was previously an Alternate Sponsored Fellow conducting research within the Radioanalytical Chemistry Division at Pacific Northwest National Laboratory. She was an NGS summer intern at Oak Ridge National Laboratory in 2010. Egnatuk was a member of an interdisciplinary group within the Lyndon B. Johnson School of Public Affairs, which investigated the global minimization of highly enriched uranium. Her work examined the feasibility of using the proposed floating nuclear power plant reactor core design within the Russia Nuclear Icebreaker Fleet. Her research interests include nuclear forensics and nuclear nonproliferation.



Dr. Amy Englebrecht is a postdoctoral researcher in the Chemical and Isotopic Signatures Group at Lawrence Livermore National Laboratory. Her research interests are in isotope geochemistry, biogeochemistry, and the application of mass spectrometry to nuclear forensics. She is also involved in the international engagement efforts of the Department of Energy's National Nuclear Security Administration, partnering with scientists from Eastern Europe and Central Asia on a series of initiatives in capacity building and nuclear forensics. Englebrecht received her Ph.D. from UC Berkeley, and her M.S. from MIT.



Alex Fay is a PhD student and DOE/NNSA Nuclear Nonproliferation International Safeguards Fellow in the Nuclear and Radiation Engineering Program at the University of Texas at Austin. His current research focuses on radioactive noble gas detection and measurement for Comprehensive Nuclear-Test-Ban Treaty verification. His research experience includes work as a National Security Intern with the Detection Systems group at Pacific Northwest National Laboratory. Fay holds a BS in Physics from the University of Arizona and an MS in Nuclear and Radiation Engineering from the University of Texas at Austin.



Erica Fein is a master's candidate in international security at the Josef Korbel School of International Studies, with a focus on nuclear security and nonproliferation policy. She is particularly interested in state proliferation behavior and the interaction between states and the International Atomic Energy Agency. Erica is also an assistant to the Korbel School's Center for the Study of Europe and the World, where she supports the Center's grant to, among other things, bring high profile officials to speak on transatlantic relations. Prior to moving to Denver, Erica was a legislative assistant to Congressman John D. Dingell, former Chairman of the Committee on Energy and Commerce. Her portfolio included foreign policy, defense/national security, judiciary, veterans' affairs, and small business issues. Erica holds a BA in international studies from the University of Wisconsin-Madison.



Marcy Rutan Fowler is a nuclear arms control and non-proliferation policy specialist, currently working at the International Atomic Energy Agency as a safeguards analyst. She recently has been named the Vienna Liaison for the International Network of Emerging Nuclear Specialists. Prior to moving to Vienna, Ms. Fowler worked with the Alfa Fellowship Program as a Visiting Junior Researcher at the Carnegie Moscow Center. Additionally, Marcy has worked as a non-proliferation associate fellow at the US National Nuclear Security Administration, and as a research associate at the Lawyers' Committee on Nuclear Policy. Marcy holds a Bachelor of Arts degree in political science and Slavic languages and literatures (Russian) from the University of Kansas, and a Master of International Affairs degree in international security policy from the Columbia University School of International and Public Affairs (SIPA). In the fall, she will begin working towards a PhD in War Studies with King's College London, focusing on multilateral nuclear arms reductions.



Nilsu Goren is a second-year doctoral student at the University of Maryland's School of Public Policy, specializing in International Security and Economic Policy and a graduate fellow at CISSM, focusing on nonproliferation issues. Prior to coming to Maryland, she was an instructor at Koc University, Istanbul, Turkey, and a research assistant at Monterey Institute's James Martin Center for Nonproliferation Studies (CNS) Washington, D.C., office, where she worked on export control and illicit nuclear trafficking issues. She holds an M.A. in Political Science and B.A. in Economics from Sabanci University, Istanbul, Turkey.

Kristen Hajduk is a research associate at the Institute for Defense Analyses (IDA) in Washington, DC. Her research involves analysis of nuclear policy with an emphasis on examining nuclear weapon states' motivations, restrictions, and security interests that could influence future multilateral arms control and disarmament agreements. Kristen has also researched issues ranging from the effects of contingency stability operations in Operation ENDURING FREEDOM to cataloging US Joint Forces coordination during Operation UNIFIED RESPONSE and US military policies related to sexual harassment prevention and response. Prior to her work at IDA, Kristen worked at the Homeland Security Institute, a think tank for the Department of Homeland Security. While there, she provided on-site support to the Office of Policy (Strategic Plans) and liaised with government officials, military officers, and scholars in working groups participating in the first ever-Quadrennial Homeland Security Review.

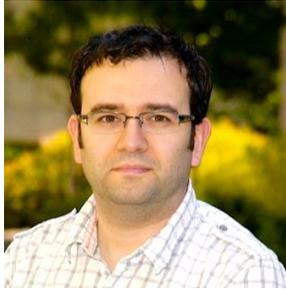
Kristen received her Masters of Public Policy (MPP) degree with a concentration in International Policy from the Irving B. Harris School of Public Policy at the University of Chicago. While there, she served as a copy editor for the *Chicago Policy Review* and briefly served as an editorial intern for the *Bulletin of the Atomic Scientists*. Before receiving her Master's degree, Kristen interned as research assistant for the Geneva Center for Security Policy and the Center on International Law and Politics in Geneva, Switzerland, participated in the NATO Staff Officer Orientation Course at the National Defense University, and as a student liaison for the International Studies program at the Ohio Wesleyan University. As a member of the Center for Strategic and International Studies' Project on Nuclear Issues (PONI), Kristen presented her ongoing research on nuclear terrorism threats at the 2011 Spring Conference. She is also a member of Women in International Studies (WIIS). Kristen lives in Alexandria, Virginia, where she volunteers at the John F. Kennedy Center for Performing Arts and practices Bikram yoga.



Jens Heinrich is a second year Ph.D. candidate at the University of Magdeburg (Germany). His thesis is about gradualistic arms control in South Asia. He holds a B.A. in Political Science and History from the University of Greifswald (Germany) and an M.A. in Peace and Conflict Studies from the University of Magdeburg. He worked as an intern for several research institutes i.e. the Institute for Peace Research and Security Policy Hamburg, the International Physicians for the Prevention of Nuclear War and the Institute for International Relations in Prague. In 2011 Mr. Heinrich was at the Institute for Defence Studies and Analyses New Delhi to conduct research for his Ph.D. thesis. His interests are arms control (esp. in South Asia), space security, non-proliferation, IR theory, and German foreign and security policy



Liviu Horovitz is a senior researcher at the Center for Security Studies (CSS) within the Swiss Federal Institute of Technology (ETH) in Zurich. He holds degrees in International Relations from the University of Dresden in Germany and the Monterey Institute of International Studies in the United States. Before coming to the CSS, he worked for the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization in Vienna and held a research position at the James Martin Center for Nonproliferation Studies in Monterey. At CSS, Liviu focuses on nuclear nonproliferation, arms control, and disarmament policies with a special emphasis on international institutions and regimes. His latest research has been published in *The Washington Quarterly*, *RUSI Journal*, and *WeltTrends*.



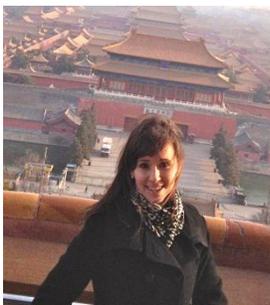
Benjamin Jacobsen is a third year postdoc at the Lawrence Livermore National Laboratory (LLNL). He received a B.S. and a M.S. in geology from the University of Copenhagen in Denmark. During his undergraduate years Benjamin spent his summers in Greenland working for mining companies on diamond and mineral exploration. His master's studies focused on the chemical and isotopic characterization of volcanic rocks from western Greenland. Following his master's, Benjamin went to the University of California in Davis to pursue a doctorate in geology. His doctorate research focused on the origin and relative abundances of now extinct radioisotopes in primitive meteorite samples, providing insight into the chronological and isotopic evolution of the early solar system. Since joining the LLNL in 2009, Benjamin has worked on various projects, related to geo- and cosmochemistry and nuclear forensics. He is interested in expanding his knowledge about U.S. and international nuclear policies related to nonproliferation, deterrence, safeguards and nuclear threats, which he hopes will foster new ideas for his research in nuclear forensics.



Naomi Marks is a second year postdoc at Lawrence Livermore National Laboratory (LLNL). She has an undergraduate degree from UC Santa Cruz in geology and a M.S. and a Ph.D. degree in geology from UC Davis. Prior to entering graduate school, Naomi worked variously as a geologist, environmental remediation specialist, summer camp counselor, organic farmer, chauffeur, hospital bed installer, grower of e. coli, and a retail salesperson specializing in woolen socks. Her master's and doctorate research focused on the geochemistry of carbonate springs in California, and hydrothermal systems in Iceland. Her background and expertise is in geochemistry, with an emphasis on isotope geochemistry and the formation of ore deposits. Naomi's current research focuses on identifying geochemical signatures in materials from the early part of the uranium fuel cycle. She has been particularly interested in developing geochemical signatures for yellowcake uranium and uranium ore materials. In addition her research focuses on radiometric dating of meteorite and early solar system planetary material. Naomi is looking forward to participating in discussions and collaborating with other researchers in the broader forensics and threat reduction communities to develop novel research approaches.



Adam Mount is a fifth-year Ph.D. candidate in Government at Georgetown University. His dissertation explains U.S. commitments to nuclear disarmament in formal settings as responses to a moral disarmament norm. His current applied research considers technical steps the U.S. can take now to better leverage extant disarmament commitments by increasing their credibility. Previously, he worked (with Alexander Montgomery) on political distortions of U.S. intelligence estimates of foreign nuclear weapons programs. He is a summer associate at the RAND Corporation doing strategic planning for the U.S. Army. His work has appeared in *Democracy: A Journal of Ideas and Security Dialogue*.



Mira Rapp-Hooper is a PhD candidate in Political Science at Columbia University. She specializes in International Relations and Security studies, with a

focus on nuclear weapons, nuclear strategy and nonproliferation. Mira is beginning a dissertation on nuclear umbrella alliances. Her project explores how countries form and manage security guarantee pacts, and how these alliances inhibit nuclear proliferation. Other research interests include US foreign policy, East Asian security issues, and 20th century diplomatic history. Mira holds a BA from Stanford in History, an MA from NYU in Politics and an MA from Columbia in Political Science.



Samuel T. Reed is a fourth year Ph.D. student in Political Science at the University of British Columbia. Though he studies a broad range of topics across the subfields of International Relations, Comparative and US Politics, his primary research focuses on denuclearization. For this program of study, Mr. Reed was the recipient of the 2010 James and Setsuko Thurlow Scholarship for Peace and Disarmament Studies. Mr. Reed also coordinates his graduate department's teaching assistant training program, and in 2012 was recognized by the Faculty of Arts for his excellence in graduate teaching. In 2007, Mr. Reed earned his B.A. from the University of California, Santa Cruz with highest honors in the major of Politics.



Todd Robinson is a fifth year doctoral candidate in the Political Science Department at the University of Illinois at Urbana-Champaign, focusing on international relations and interstate conflict. His dissertation, entitled "Nuclear Neighbors and Nuclear Neighborhoods," investigates how states respond to changes in the nuclear weapons production capabilities of other states. His research interests include nuclear proliferation and nonproliferation, regional variations in conflict processes, and conflict escalation. Prior to coming to the U of I, he was a research analyst at NASA's Marshall Space Flight Center in Huntsville, AL. Prior to working at NASA, he worked as a research associate at the Council on Foreign Relations, in Washington, D.C., in their Asia and Science and National Security programs. He has a B.A. in East Asian Studies from the University of Alabama, and an M.A. in Security Policy Studies from The George Washington University's Elliott School of International Affairs.



Jacquelyn Schneider is a PhD student in political science at Arizona State University. Her research focuses on the role of intelligence in nuclear and conventional deterrence. Current projects include a quantitative analysis of the role of intelligence failures in the onset of war and a case study of the role of intelligence failures in Lyndon Johnson and George W. Bush's decisions to go to war. Before entering the doctoral program at ASU, Jacquelyn served as an Air Force intelligence officer in South Korea and Japan. Her work spanned two North Korean nuclear tests, the implementation of UNSC resolutions 1718 and 1874, and enforcement of the Proliferation Security Initiative throughout Asia. She holds a B.A. from Columbia University in Economics and Political Science.



Salma Shaheen is a PhD candidate in the Department of War Studies at King's College London and working on her doctoral project on "Strategic Culture and Nuclear Command and Control System: A Comparative Study of India and Pakistan". Previously, Salma worked in the Arms Control and Disarmament Affairs Directorate, Strategic Plans Division, Pakistan on the issues related to the nuclear non-

proliferation. She also worked as a visiting faculty member at Fatima Jinnah Women University, Pakistan. Salma holds M. Phil in Defense & Strategic Studies from Quaid-i-Azam University, Pakistan.



Heather Williams is a PhD Candidate in the Department of War Studies at King's College London. Her thesis is on "The Legacy of 'Trust but Verify' in U.S.-Russia Arms Control," and examines trust-building tools in the Presidential Nuclear Initiatives, START, Moscow Treaty, and New START. She is also an adjunct researcher with the Institute for Defense Analyses in Alexandria, VA, where she worked prior to starting doctoral research. Heather previously worked for Analytic Services, Inc. in the Office of the Secretary of Defense Chemical and Biological Defense Program, and for the US Air Force. She has a BA in International Relations and Russian Studies from Boston University and an MA in Security Policy Studies from The George Washington University.