

Contributors (as of April 2025)

Dr. Scott Pace is the Director of the Space Policy Institute and a Professor of the Practice of International Affairs at George Washington University's Elliott School of International Affairs. In addition, he formerly served as the Director of the International Institute of Science and Technology Policy as well as the Master of Arts program in International Science and Technology Policy. Dr. Pace is also a member of the faculty of the Trachtenberg School of Public Policy and Public Administration. His research interests include civil, commercial, and national security space policy, and the management of technical innovation. Dr. Pace rejoined the faculty of the Elliott School in January 2021 after serving as Deputy Assistant to the President and Executive Secretary of the National Space Council from 2017-2020. From 2005-2008, he served as the Associate Administrator for Program Analysis and Evaluation at NASA. Prior to NASA, Dr. Pace was the Assistant Director for Space and Aeronautics in the White House Office of Science and Technology Policy (OSTP). From 1993-2000, Dr. Pace worked for the RAND Corporation's Science and Technology Policy Institute (STPI). From 1990 to 1993, Dr. Pace served as the Deputy Director and Acting Director of the Office of Space Commerce, in the Office of the Deputy Secretary of the Department of Commerce. He received a Bachelor of Science degree in Physics from Harvey Mudd College in 1980; Master's degrees in Aeronautics & Astronautics and Technology & Policy from the Massachusetts Institute of Technology in 1982; and a Doctorate in Policy Analysis from the RAND Graduate School in 1989. Dr. Pace received the Order of the Rising Sun with Gold and Silver Stars from the Government of Japan in 2021, the Office of the Secretary of Defense Group Achievement Award in 2020, the NASA Outstanding Leadership Medal in 2008, the US Department of State's Group Superior Honor Award (GPS Interagency Team) in 2005, and the NASA Group Achievement Award (Columbia Accident Rapid Reaction Team) in 2004. He has been a member of the US Delegation to the World Radiocommunication Conferences in 1997, 2000, 2003, and 2007. He was also a member of the US Delegation to the Asia-Pacific Economic Cooperation Telecommunications Working Group, 1997-2000. More recently, he has served as a member of the U.S. Delegation to the UN Committee on the Peaceful Uses of Outer Space in 2009, 2011-17, and 2022-2024. Dr. Pace was a member of the NOAA Advisory Committee on Commercial Remote Sensing (ACCRES) from 2012-2017 and was the Vice-Chair. Dr. Pace is a former member of the Board of Trustees, Universities Space Research Association, a Member of the International Academy of Astronautics, an

Associate Fellow of the American Institute of Aeronautics and Astronautics, and a Fellow of the American Astronautical Society.

Mr. Bryan Clark is a senior fellow and Director of the Center for Defense Concepts and Technology at Hudson Institute. He leads studies there in naval operations and fleet architecture, electronic warfare, autonomous systems, military competitions, 5G telecommunications, and command and control. Before joining Hudson Institute, Bryan was a senior fellow at the Center for Strategic and Budgetary Assessments (CSBA), where he led studies for the DoD Office of Net Assessment, Office of the Secretary of Defense, and Defense Advanced Research Projects Agency on new technologies and the future of warfare. Prior to joining CSBA, he was special assistant to the Chief of Naval Operations and director of his Commander's Action Group, where he led development of Navy strategy and implemented new initiatives in electromagnetic spectrum operations, undersea warfare, expeditionary operations, and personnel and readiness management. During his 25-year Navy career, Bryan was an enlisted and officer submariner, serving in afloat and ashore submarine operational and training assignments including tours as chief engineer of two nuclear submarines and operations officer at the Navy's nuclear power training unit. He has a Master of Science degree in national security studies from the U.S. National War College, a Bachelor of Science degree in chemistry and philosophy from the University of Idaho and conducted graduate research in chemistry at the University of Washington.

Dr. John Klein, callsign "Patsy," is a subject matter expert on space strategy and also instructs space policy and strategy courses at the undergraduate, graduate, and doctorate levels at several universities in the Washington, DC area. He routinely writes on space strategy, deterrence, and the Law of Armed Conflict. He is the author of the books *Understanding Space Strategy: The Art of War in Space* (2019), *Fight for the Final Frontier: Irregular Warfare in Space* (2023), and *Space Warfare: Strategy, Principles and Policy* (2006 and 2024), along with a score of other book chapters and articles. Dr. Klein is also a retired Commander, United States Navy, receiving his commission through the Naval Reserve Officers' Training Corps program at Georgia Tech. He served for 22 years as a Naval Flight Officer, primarily flying in the S-3B Viking carrier-based aircraft. Dr. Klein supported combat operations in Iraq and Afghanistan. His tours included the Executive Officer of Sea Control Squadron Twenty Four and the final Commanding Officer of Sea Control Weapons School. Dr. Klein holds a bachelor's in Aerospace Engineering

from Georgia Tech, a master's in Aeronautical Engineering from the Naval Postgraduate School, a master's in National Security and Strategic Studies from the Naval War College, and a Ph.D. in Strategic Studies from the University of Reading, England. Patsy is a distinguished graduate of the U.S. Naval Test Pilot School. He has over 2,700 flight hours in 27 different type aircraft and over 600 carrier arrested landings.

Kevin Pollpeter, Ph.D., is the Director of Research for the China Aerospace Studies Institute (CASI). Before joining CASI, he was a Senior Research Scientist at the Center for Naval Analyses. Dr. Pollpeter is widely published on China national security issues, focusing on China's space program and information warfare. His recent publications include *To Be More Precise: BEIDOU, GPS, and the Emerging Competition in Satellite-Based PNT*; *Coercive Space Activities: The View from PRC Sources*; *The PLA and Intelligent Warfare: A Preliminary Analysis*; and *China's Space Narrative: Examining the Portrayal of the US-China Space Relationship in Chinese Sources and Its Implications for the United States*. A Chinese linguist, he holds an MA in international policy studies from the Monterey Institute of International Studies and a Ph.D. from King's College London.

Dr. Bleddyn Bowen is Associate Professor of Astropolitics at the School of Government and International Affairs (SGIA) and a Co-Director of the Space Research Centre (SPARC) at Durham University. He is the author of two monographs: *Original Sin: Power, Technology, and War in Outer Space* (Hurst, 2022) and *War in Space: Strategy, Spacepower, Geopolitics* (Edinburgh University Press, 2020); and multiple peer-reviewed articles. His research focuses on spacepower and strategic theory; space policy and politics; military space history; technology and modern warfare; international relations, security, and intelligence in space. Dr Bowen has advised, presented, and briefed for many government agencies and offices, including the UK Prime Minister's Policy Unit, the US National Space Council, the US Space Force, the European Space Agency, UK Ministry of Defence, UK Space Agency, the UK Parliament, and the Japanese Cabinet Office. Prior to joining Durham University, Dr Bowen taught and researched at the University of Leicester, King's College London, and Aberystwyth University.

Dr. FUKUSHIMA Yasuhito is an Associate Professor in the Faculty of Policy Management at Keio University. He holds a Ph.D. in Media and Governance from Keio University. Before assuming his current position in 2025, he served as a Research Fellow at the Center for the Promotion of Disarmament and Non-Proliferation of the

Japan Institute of International Affairs, and as a Senior Research Fellow in the Global Security Division of the National Institute for Defense Studies. His research focuses on space policy and space security. He has held visiting scholar positions at the Space Policy Institute of the Elliott School of International Affairs, George Washington University (August–October 2013), and at the University of California Institute on Global Conflict and Cooperation (September 2022–June 2023). His major publications include *Uchu to Anzen Hosho: Gunji Riyō no Chōryū to Gabanansu no Mosaku* [Order and Disorder in Space Security: Past, Present, and Future] (Chikura Shobo, 2020) and the co-authored chapter “Techno-Security Space Innovation,” co-authored with Tai Ming Cheung, in *The Oxford Handbook of Space Security* (Oxford University Press, 2024).

Since October 2016, **Dr. Xavier Pasco** (Doct. In Pol. Sc.- Univ. of Paris-Sorbonne) has been Director of the Fondation pour la Recherche Stratégique (FRS) in Paris. Before that, Dr. Pasco has been in charge of space, high technology and security-related studies since the late eighties at FRS and CREST (*Center for Research and Evaluation of the relationships between Strategies and Technology*) associated to Ecole Polytechnique. Xavier Pasco has conducted several projects related to the use of space for security, notably in support of national and international organizations. For more than two decades, he has also coordinated several projects supported by the European Union (EC and EDA) and the European Space Agency. He has published numerous works (books and more than 100 articles or papers) on these topics. His latest books include « *La ruée vers l'espace : nouveaux enjeux géopolitiques* », Paris, Editions Tallandier, 2024 ; and “*Le nouvel âge spatial : de la Guerre froide au New Space*”, Paris, CNRS Editions, 2017. He has also been giving lectures in the French Military School in Paris as well as at the Institute of Political Studies in Paris. He is the European Editor of the international academic review *Space Policy* and has been elected in 2012 as a full member of the *International Academy of Astronautics*. He has also been a member of the U.S. based *Secure World Foundation* (SWF) Advisory Committee.

Dr. Rajeswari (Raji) Pillai Rajagopalan is Resident Senior Fellow at the Australian Strategic Policy Institute (ASPI), Canberra, Australia. Prior to joining ASPI, she was the Director of the Centre for Security, Strategy & Technology (CSST) at the Observer Research Foundation, New Delhi. In 2020, she was Co-chair for a thematic group on “Strategic Technologies” for Science, Technology, and Innovation Policy (STIP 2020) Report, Office of Principal Scientific Advisor, Government of India and Department

of Science and Technology, Government of India. In 2018-19, Dr. Rajagopalan was the Technical Advisor to the United Nations Group of Governmental Experts (GGE) on Prevention of Arms Race in Outer Space (PAROS). She was also a Non-Resident Indo-Pacific Fellow at the Perth USAsia Centre from April-December 2020. She was also a Visiting Professor at the Graduate Institute of International Politics, National Chung Hsing University, Taiwan in 2012. From 2018-2024, she was a senior Asia defence writer and a weekly columnist for *The Diplomat*, focusing on Asian strategic issues. Dr. Rajagopalan joined ORF after a five-year stint at the National Security Council Secretariat (2003-2007), Government of India, where she was an Assistant Director. Prior to joining the NSCS, she was Research Officer at the Institute of Defence Studies and Analyses, New Delhi. Dr. Rajagopalan has authored/ co-authored or edited more than a dozen books including *Assessing India's Perceptions of China's Nuclear Expansion* (2025), *In Pursuit of Nuclear Security: Reducing India's Risks to Nuclear Terrorism* (2024), ORF-Global Policy Journal Special Issue, *Future Warfare and Critical Technologies: Evolving Tactics and Strategies* (2024), *Military Ambitions and Competition in Space: the Role of Alliances* (2022), ORF-Global Policy Journal Special Issue, *Future Warfare and Technology: Issues and Strategies* (2022), *Military Ambitions and Competition in Space: The Role of Alliances* (2021), *Global Nuclear Security: Moving Beyond the NSS* (2018), *Space Policy 2.0* (2017), *Nuclear Security in India* (2015), *Clashing Titans: Military Strategy and Insecurity among Asian Great Powers* (2012), *The Dragon's Fire: Chinese Military Strategy and Its Implications for Asia* (2009). She has published research essays in edited volumes, and in peer reviewed journals such as *India Review*, *Strategic Studies Quarterly*, *Air and Space Power Journal*, *International Journal of Nuclear Law and Strategic Analysis*. She has also contributed essays to newspapers such as *The Washington Post*, *The Wall Street Journal*, *Times of India*, and *The Economic Times*. She has been invited to speak at international fora including the United Nations Disarmament Forum (New York), the UN Committee on the Peaceful Uses of Outer Space (COPUOS) (Vienna), Conference on Disarmament (Geneva), ASEAN Regional Forum (ARF) and the European Union. Dr. Rajagopalan tweets @raji143 and she can be reached on email: rajiraja@aspi.org.au; rajeswarirajagopalan@gmail.com

NIDS International Symposium on Security Affairs

National Security Space Policies in the Changing Environment

Wednesday, December 11, 2024

9:30-9:35 Opening Remarks: **KOBAYASHI Kazuhiro** (Parliamentary Vice-Minister of Defense)

9:35-10:05 Keynote Speech

Dr. Scott Pace (Professor of the Practice of International Affairs, Director of the Space Policy Institute, Director of the Institute for International Science and Technology Policy and Director of the MA International Science and Technology Policy program at the George Washington University's Elliot School of International Affairs)

10:20-11:50 Session 1 Changes in the Strategic Environment in the Space Domain

Chair: **Dr. FUKUSHIMA Yasuhito** (Senior Research Fellow, Global Security Division, Policy Studies Department, National Institute for Defense Studies)

Speakers:

Bryan Clark (Senior Fellow and Director of the Center for Defense Concepts and Technology at Hudson Institute)

Dr. John Klein (Senior Fellow and Strategist at Falcon Research, Inc.)

Dr. Kevin Pollpeter (Director of Research at the Department of the Air Force's China Aerospace Studies Institute)

Discussant: **Dr. AOKI Setsuko** (Professor of Law at Keio University Law School)

13:30-15:20 Session 2 Major Country Policies in the Changing Environment

Chair: **IIDA Masafumi** (Director of the Security Studies Department at the National Institute for Defense Studies)

Speakers:

Dr. Bleddyn Bowen (Associate Professor in the School of Government and International Affairs at Durham University)

Dr. FUKUSHIMA Yasuhito (Senior Research Fellow, Global Security Division, Policy Studies Department, National Institute for Defense Studies)

Dr. Xavier Pasco (Director of the Foundation for Strategic Research)

Dr. Rajeswari (Raji) Pillai Rajagopalan (Resident Senior Fellow, Australian

Strategic Policy Institute)

Discussant: **Dr. SUZUKI Kazuto** (Professor of Science and Technology Policy at the University of Tokyo's Graduate School of Public Policy and Director of the Institute of Geoeconomics)

15:35-16:35 Session 3 Wrap-up Discussion

Chair: **Dr. FUKUSHIMA Yasuhito** (Senior Research Fellow, Global Security Division, Policy Studies Department, National Institute for Defense Studies)

16:35-16:40 Closing Remarks: **IMAKYUREI Manabu** (President, National Institute for Defense Studies)