

The Increasing Peril from Nuclear Arms: and how physicists can help reduce the threat

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Abstract

With geopolitical and technological changes mostly driven by the nuclear weapon states, we are beginning a new nuclear arms race and deterioration of the multi-decade arms control regime. This talk will overview the basic technical and policy aspects of nuclear weapons, and describe the current critical situation, feasible steps to reduce the nuclear threat, and a new project sponsored by the American Physical Society to engage physical scientists in advocacy for nuclear threat reduction.

Short bio: Stewart Prager is a professor of astrophysical science at Princeton University and an affiliated faculty with the Program on Science and Global Security. He is co-founder of the Physicists Coalition for Nuclear Threat Reduction, sponsored by the American Physical Society. From 2009 to 2016 he was director of the Princeton Plasma Physics Laboratory, a Department of Energy national laboratory. Prior to joining Princeton he was the Dexter Professor of Physics at the University of Wisconsin-Madison where he directed the Madison Symmetric Torus experimental program and the Center for Magnetic Self-Organization in Laboratory and Astrophysical Plasmas (an NSF Physics Frontier Center). His research is in plasma physics and fusion energy, but since 2016 he has focused on nuclear arms control.