

APR21-2020-000098

Abstract for an Invited Paper
for the APR21 Meeting of
the American Physical Society

Leo Szilard Lectureship Award (2021): Reducing Nuclear Weapons and the Risk of Nuclear War

STEVE FETTER, University of Maryland

The Cold War ended 30 years ago, but nuclear weapons and the threat of nuclear war remain. Nine countries together deploy about 10,000 nuclear weapons, most with a destructive potential an order of magnitude greater than the bombs that destroyed Hiroshima and Nagasaki. The United States and Russia, which together account for 90 percent of global stockpiles, each maintain about 1000 nuclear weapons on constant alert, ready to be launched in a few minutes. Arms control agreements that have constrained US and Russian arsenals and provided stability are on the brink of collapse, and both countries are poised to field a new generation of nuclear weapons. Physicists played a vital role at the beginning of the nuclear age and throughout the Cold War in engaging policymakers about nuclear dangers and advocating for policies to reduce them. Physicists should again take a leading role in educating the public and policymakers.