Abstract:
Are there important goals to be achieved with nuclear weapons of new design, such as the notorious "bunker buster"? Or the low-yield weapon sought to destroy rather than scatter chemical or biological agents in underground storage? Are nuclear tests necessary to have confidence in these new systems? Are nuclear tests needed to maintain a safe, reliable stockpile of weapons of existing design? Is there a downside to U.S. nuclear testing? This talk will briefly review the nature of nuclear weapons, the purposes of nuclear tests, the potential effectiveness of "bunker buster" and "agent defeat" weapons, and the question of maintaining a nuclear stockpile without nuclear testing. A path forward for nuclear weapons is proposed, on the basis of this analysis.