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Physics and Nuclear Disarmament: Political and Technical Challenges of a World free of Nuclear Weapons

Wednesday 10 October 2012 19:00 (1 hour)

After the end of the Cold War, there was much hope that nuclear weapons can be reduced drastically. Despite some arms control successes, nuclear weapons still play a major role in world politics. The high nuclear arsenals between the USA and Russia are still based on Cold War doctrines facing new challenges such as the introduction of Ballistic Missile defense and precise conventional strike systems. technical expertise is necessary to analyse nuclear dismantlement and deep cuts in nuclear stockpiles, as well as the verification of fissile materials and the remocal of tactical nuclear weapons. The dispute on Iran´s ambivalent nuclear programmes reveals the thin line between civilian and military applications. Additional scientific-technical measures are necessary to strengthen non-proliferation and arms export control. The talk presents what scientists have done in the past to apply there skills for arms control and disarmament. Finally, the talk describes the scientific challenges of a world free of nuclear weapons and gives some examples of physical methods.

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