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Physics and Its Multiple Roles in the International Atomic Energy Agency

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The IAEA is the world's centre for cooperation in the nuclear field. It was set up as the world's "Atoms for Peace" organization in 1957 within the United Nations family. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies. Three main areas of work underpin the IAEA's mission: Safety and Security, Science and Technology, and Safeguards and Verification. To carry out its mission, the Agency is authorized to encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world; foster the exchange of scientific and technical information on peaceful uses of atomic energy; and encourage the exchange of training of scientists and experts in the field of peaceful uses of atomic energy. Nowadays, nuclear physics and nuclear technology are applied in a great variety of social areas, such as power production, medical diagnosis and therapies, environmental protection, security control, material tests, food processing, waste treatments, agriculture and artifacts analysis. This presentation will cover the role and practical application of physics at the IAEA, and, in particular, focus on the role physics has, and will play, in nuclear security