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IAEA Activities in Support of Nuclear Physics Research and Applications

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Facilitation of development and promotion of nuclear applications for peaceful purposes and related capacity building are among the IAEA missions where Physics Section contributes most. The relevant activities fall under the IAEA's sub-programme nuclear science and cover four main thematic areas: research and applications of particle accelerators, sustainable utilization of research reactors, controlled fusion research and technology, and nuclear instrumentation. The Section also operates the Nuclear Science and Instrumentation Laboratory (NSIL) at Seibersdorf, located approximately 40 km south of Vienna. NSIL's primary mission is to assist IAEA Member States to establish, operate and maintain various nuclear instrumentation and spectrometry-based techniques in support of a wide range of applications such as materials research, energy, environment, food, agriculture, health care, cultural heritage, forensics, and some others. This presentation will illustrate through a number of selected examples how the IAEA supports nuclear physics research and diverse applications in order to address key development priorities in many areas of societal importance and economic growth of the developing countries. In addition, some future plans on enhancing capabilities of the NSIL as part of Physics Section will be highlighted, in particular by establishment of the neutron science facility and considerations for an ion beam accelerator in Seibersdorf.

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