



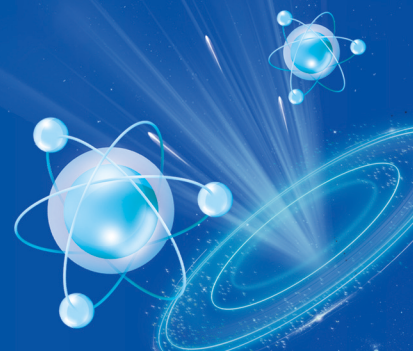
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LANZHOU CHINA



ITALIAN PROJECTS TO EDUCATE, TRAIN AND BRING THE YOUNG GENERATION TO DISCOVER THE RADIOACTIVITY

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Since 2004 in Italy, we are involved in projects devoted to young students of High Schools to bring them closer to subjects like Physics in particular to Physics applied to the human health, which provides for the presence and use of the ionizing radiation. We want to show them the double face of the radioactivity: from the point of view of limiting the effect of exposition thanking to radioprotection as for the application of radionuclides in nuclear medicine. In this contest we develop two projects: 1. RADIOLAB and ISOradioLAB, devoted to the measurement of natural radioactivity in particular of radon-222 directly by the students in order to understand that we live in a world where radioactivity is omnipresent. This experience nowadays has been declined to be implemented at the minor Italian islands like Lampedusa and is exported also in other countries like Albania and Mexico; 2. The Particle Physics MasterClass, in which they can understand the use of artificial radioactivity in Nuclear Medicine. In this case the students realize a real treatment plan to treat tumors of specific organs with different particle beams (photons, protons, carbon ions). In both project the students are called to present their results and experience: in the first case after about two year of work to other students involved in the project and to other schools of the same Region or the other Italian Regions during National meetings. In the second one at the end of the day in an international virtual meeting organized at CERN with the students of the other participant institutes around the world and in the presence of experts. In this contribution we present the rich and stimulating experience which requires students to become “researchers” involved in real approach to the radioactivity items. These

kind of proposals are inserted in the STEM Italian Projects and are useful also to improve the High School teachers's expertise in Modern Physics subjects.

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