

SEMINARIO DEL DEPARTAMENTO DE FÍSICA TEÓRICA

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Perspectives of Underground Physics

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Abstract: Underground laboratories are complementary to those with accelerators in the physics of the elementary constituents of matter and of their interactions. In particular phenomena of energy scales that are so high not to be reachable by accelerators can be indirectly explored by observing naturally happening events. These however are extremely rare and the experiments need to be shielded by the much more frequent natural radioactivity phenomena. After a general overview I will focus on three of the most relevant research fields: solar neutrinos, the nature of neutrinos and the search for dark matter.