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Title: Searching for Dark Matter: results from CDMS-11 and plans for MiniCLEAN

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Abstract
XXIV REUNION ANUAL DE LA DPyC-SMF

Searching for Dark Matter: results from CDMS-II and plans for MiniCLEAN RAUL HENNINGS-YEOMANS, Los Alamos National Laboratory — Within the ΛCDM model, about ~85% of the matter in the Universe consists of non-bariónic particles from which only their gravitational effects have been observed and are currently unknown. The search for this matter (Dark Matter) is of fundamental importance for the physics of elementary particles, astrophysics and cosmology. I will present the most recent results of the direct detection experiment CDMS-II that utilizes garmanium and silicon cryogenic detectors at the Soudan Underground Laboratory in Minnesota, USA. Furthermore, I will present the research and development of the MiniCLEAN experiment that will run at SNOLAB and will utilize about 400 kg of liquid Argon to achieve a projected sensitivity of $2\times10^{-45}\mathrm{cm}^2$ for a mass of 100 $\mathrm{GeV/c}^2$ assuming a spin-independent WIMP-nucleon interaction.

Abstract
XXIV REUNION ANUAL DE LA DPyC-SMF

Buscando la Materia Oscura: resultados de CDMS-II y planes de MiniCLEAN RAUL HENNINGS-YEOMANS, Los Alamos National Laboratory — Dentro del modelo ΛCDM, un ~85% de la materia del Universo consiste de partículas no-bariónicas de las que sólo sus efectos gravitacionales se han observado y que desconocemos hasta la fecha. La búsqueda de esta materia (Materia Oscura) es de fundamental importancia para la física de partículas elementales, la astrofísica y la cosmología. Presentaré los resultados más recientes del experimento de detección directa CDMS-II que utiliza detectores criogénicos de germanio y silicio en el Laboratorio Subterráneo de Soudan, Minnesota, EUA. Además presentraré la investigación y desarrollo del experimento MiniCLEAN que se llevará acabo en SNOLAB y que utilizará alrededor de 400 kg de Argón líquido para lograr un alcance proyectado de $2\times10^{-45}\mathrm{cm}^2$ para una masa de 100 $\mathrm{GeV/c}^2$ suponiendo una interacción de WIMP-nucleón independiente del espín.