



ID de Contribution: 12

Type: Non spécifié

The LUNA experiment : direct measurement of thermonuclear cross sections of astrophysical interest

jeudi 13 octobre 2011 10:40 (40 minutes)

The LUNA (Laboratory for Underground Nuclear Astrophysics) experiment has been measuring nuclear cross sections of astrophysical interest since 1990. Two accelerators have been installed underground in the Gran Sasso laboratory where the cosmic background is very much reduced with respect to a laboratory on the Earth's surface. Therefore, a direct measurement of thermonuclear cross sections belonging to the pp chain or to the CNO cycle of Hydrogen burning or essential for the big bang nucleosynthesis is possible even if the expected rate is extremely low. After a general introduction, the most important results obtained up to now will be reviewed and their astrophysical implications discussed. The future perspectives of the LUNA experiment will also be presented.

Auteur: Dr GUGLIELMETTI, Alessandra (Universita' degli Studi di Milano and INFN Milano)

Orateur: Dr GUGLIELMETTI, Alessandra (Universita' degli Studi di Milano and INFN Milano)