

Underground Laboratories in Nuclear Astrophysics: Present status and future opportunities

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Underground laboratories afford orders-of-magnitude lower backgrounds than laboratories on the Earth's surface. As such, they provide the best environment to measure the ultra-low yields typical of thermonuclear reactions of astrophysical interest.

The pioneering work carried out over the last two decades at the world's only laboratory for underground nuclear astrophysics, LUNA, at Gran Sasso in Italy, has demonstrated the benefit of underground measurements and has paved the way for new proposals on similar facilities worldwide.

In this talk, I will review the current status of the LUNA program and present an overview of proposed future facilities together with their major scientific drivers.

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