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## Nuclear astrophysics at LUNA and LUNA-MV

*Monday 16 September 2024 15:00 (25 minutes)*

During the last 30 years, the Laboratory for Underground Nuclear Astrophysics (LUNA) investigated many nuclear reactions of interest for cosmological and stellar models, often directly at the relevant Astrophysical energies. Nuclear reactions involved in the Big Bang nucleosynthesis, the p-p and CNO chains, as well as slow neutron capture were studied providing accurate and precise data to the to both the nuclear and astrophysics communities. To study more energetic scenarios as the carbon fusion, a new 3.5 MV accelerator (LUNA-MV) was installed, commissioned and now in operation at the Bellotti facility of the Gran Sasso Laboratories.

In this talk I will present results of recent LUNA measurements and give an overlook of the current activities and possible outlooks.

**Primary author:** RAPAGNANI, David (Università degli Studi di Napoli "Federico II")

**Presenter:** RAPAGNANI, David (Università degli Studi di Napoli "Federico II")

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