

ELPH seminar

講師： Professor Wang Shuo
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日時： 2月21日 (水) 15:00~16:30

場所： 電子光理学研究センター三神峯ホール

The progress about Jinping Underground Nuclear Astrophysics experiment in China

Extremely low background experiments to measure key nuclear reaction cross sections of astrophysical interest are conducted at Jinping Underground Nuclear Astrophysics experiment (JUNA) facility in the China Jinping Underground Laboratory (CJPL), which is the deepest underground laboratory in the world.

A new 400 kV accelerator with high beam intensity was constructed in the end of 2020. Experiments on several key reactions, like $^{12}\text{C}(\alpha,\gamma)^{16}\text{O}$, $^{19}\text{F}(p,\alpha\gamma)^{16}\text{O}$, $^{13}\text{C}(\alpha,n)^{16}\text{O}$ and $^{25}\text{Mg}(p,\gamma)^{26}\text{Al}$ have been studied in Phase I and the results will be presented.

Phase II of the JUNA collaboration has begun and will study the reactions about $^{14}\text{N}(p,\gamma)^{15}\text{O}$, $^{22}\text{Ne}(\alpha,n)^{25}\text{Mg}$, $^{17}\text{O}(p,\gamma)^{18}\text{F}$, and $^{10}\text{B}(\alpha,n)^{13}\text{N}$.

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