

Positron generation and transmutation of high-Z targets by high-intensity lasers

Saturday 20 July 2024 16:45 (15 minutes)

One of the most significant problems in modern physics is the apparent asymmetry of matter and antimatter in the Universe. Recent laser experiments in the United States have demonstrated that high intensity lasers striking high-Z targets release electron/positron pairs that can be separated magnetically, while also resulting in transmutation of the lasers' targets. With these experimental results, a composite model of hadron structure involving matter and antimatter is indicated and explained. The implications of these experimental results, including specifically the cosmology resulting from this composite matter/antimatter model (covering proton-proton chain reactions in stars, neutrino generation, beta decay, Dark Matter, Dark Energy, and Strong Force/gravity/inertia interchange) will be discussed.

Alternate track

1. Strong Interactions and Hadron Physics

I read the instructions above

Yes

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Session Classification: Astro-particle Physics and Cosmology

Track Classification: 08. Astro-particle Physics and Cosmology