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Particle Physics at LPTHE

Mardi 10 Mai 2016, 14 :00
LPTHE, Library
Domaines : hep-ph

Titre : *Self-consistent Calculation of the Sommerfeld Enhancement*

Orateur : **Kfir Blum (Weizmann Institute of Science, Israel)**

Résumé : *A calculation of the Sommerfeld enhancement is presented and applied to the problem of s-wave non- relativistic dark matter annihilation. The difference from previous computations in the literature is that the effect of the underlying short-range scattering process is consistently included together with the long-range force in the effective QM Schrödinger problem. Our procedure satisfies partial-wave unitarity where previous calculations fail. We provide analytic results for some potentials of phenomenological relevance.*