

SUPER LOW ENERGY GAMMA RADIATION DETECTION

GAMMA RADIATION INTERACTION WITH MATTER

PHOTONIC SPECTRUM

COMPTON EFFECT

PAIR PRODUCTION

DETECTION


WHAT LOW ENERGY IS HARD TO MEASURE

SOLUTION

EMPIRICAL SPECTRUM OF THE DETECTOR (LEFT SIDE)

IF YOU ARE INTERESTED

ipen USP




Use of software cha

Gabriel V. VI
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The Standard Model of Particle Physics is dynamic. Currently, the SM is the most successful theory of particle physics, but it has some problems and is not yet a complete theory. Dark energy, and neutrino masses, for example, are not explained by the SM. Therefore, it is an important step in order to go beyond the SM.

To delve into the study of BSM theories, an efficient computational software tool is needed. For example, it is possible to integrate software packages like MadGraph, Pythia, and Delphes. Through this software chain, the theoretical models can be simulated.



MadGraph is designed to calculate and generate Feynman diagrams, perform the necessary algebraic and numerical calculations, generate the input files for the event generators, and simulate the particle events. This software chain is an important computational tool for BSM research.