SPARK 2025 (Symposium on Physics: Advances in Research and Knowledge)



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Quantum Particle in a Parallelogram: Energy Spectrum and Eigenfunctions

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We study a quantum particle confined to a two-dimensional parallelogram with infinite potential walls. By employing a suitable non-orthogonal coordinate system, we derive exact expressions for the energy eigenvalues and eigenfunctions. The results generalize the rectangular case and reveal how skewing the domain modifies both the spectrum and the wave functions.

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