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## Rewriting the probability of large compactified extra dimension

In a model where the right-handed neutrinos can propagate in a large compactified extra dimension and where the left-handed neutrinos are confined to a 4-dimensional spacetime, the oscillation probability in this model is  $P_{\alpha\beta} = |\sum_{k=1}^3 U^{\alpha k} U^{\beta k*} A_k|^2$ , where  $A_k = A_k(L, E_\nu, R_{LED}) = \sum_{n=0}^{\infty} (L_k^{0n})^2 \exp(iL\lambda_k^{(n)2}/2E_\nu R^2)$ . In this poster, I will show an approximation of this probability and, through figures, I will compare it with the probability of standard oscillation for different baselines to understand the different terms that make up this approximation.

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