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*Exactly stable non-BPS spinors in heterotic string theory on tori*

Considering  $SO(32)$  heterotic string theory compactified on tori, stability of non-supersymmetric states is studied. A non-supersymmetric state with robust stability is constructed, and its exact stability is proven in a large region of moduli space against all the possible decay mechanisms allowed by charge conservation. Using various T-duality, we translate various selection rules about conserved charges into simpler problems resembling partition and parity of integers.