T-structures in a 2-Calabi-Yau triangulated category

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Abstract. We prove that indecomposable 2–Calabi-Yau triangulated categories with cluster tilting objects have no non-trivial t-structures. This allows us to give a classification of cotorsion pairs in this triangulated category. Moreover the hearts of cotorsion pairs in the sense of Nakaoka are equivalent to the module categories over the endomorphism algebras of the cores of the cotorsion pairs.