Title: On the Diophantine equation $X^2 - (2^{2m} + 1)Y^4 = -2^{2m}$

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Using a recent result of Akhtari on quartic Thue equations, it is shown that the quartic equation $X^2 - (2^{2m} + 1)Y^4 = -2^{2m}$ has at most 12 solutions in odd positive integers X, $Y > 1$.

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