Title: On the number of solutions of binomial Thue inequalities

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Let \( a, b \) and \( n \) be positive integers with \( n \geq 3 \) and consider the binomial Thue inequality \( |ax^n - by^n| \leq 3 \). In this paper, we extend a result of the first author \(^?\) and prove that, apart from finitely many explicitly given exceptions, this inequality has at most a single solution in positive integers \( x \) and \( y \). In the proof, we combine lower bounds for linear forms in logarithms of algebraic numbers with the hypergeometric method of Thue–Siegel and an assortment of techniques from computational Diophantine approximation.

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