

## Pell equations and sequences

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For an integer  $d \geq 2$  which is not a square, we show that there is at most one value of the positive integer  $X$  participating in the Pell equation  $X^2 - dY^2 = \pm 1, 4$  which is in some sequences such as the sequences of Fibonacci numbers, Pell numbers, Tribonacci numbers, ... with a few exceptions that we can completely characterize.

During this talk, we will give a quick survey of the recent results obtained. The talk is based on a joint work with Florian Luca and other coauthors.