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Untangling Twisted Thue Equations

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In his 10th problem, Hilbert asked for an algorithm to determine whether a given Diophantine equation has integer solutions.

While it has been proven that such an algorithm does not exist, several important classes of Diophantine equations can still be solved effectively.\

In this talk, we will study one such class, the class of Thue equations, with a particular focus on the family of so-called “twisted” Thue equations.

We will look at a method to completely solve a certain family of twisted Thue equations, i.e. to determine all integer solutions.

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