

# LINEAR RECURRENCES AND THE SUBSPACE THEOREM

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I will divide my talk into 2 parts. First of all I will talk about *Diophantine approximation*, which is the branch of mathematics studying the approximation of real numbers by rationals, doing a historical review starting from the Dirichlet approximation theorem and arriving to the powerful *Subspace Theorem*. Then I will show an application of this theorem to a problem involving *linear recurrences*, which are the coefficients of the power series expansion of the rational functions (an example of them is the Fibonacci sequence).