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Title: Diophantine Approximation for Systems of Linear Forms

Abstract:

Diophantine Approximation is a branch of Number Theory in which the central theme is understanding how well real numbers can be approximated by rationals. In the most classical setting, a ψ -well-approximable number is one which can be approximated by rationals to a given degree of accuracy specified by an approximating function ψ . Khintchine's Theorem provides a beautiful characterisation of the Lebesgue measure of the set of ψ -well-approximable numbers and is one of the cornerstone results of Diophantine Approximation. In this talk I will discuss the generalisation of Khintchine's Theorem to the setting of approximation for systems of linear forms. This talk is based on recent joint work with Felipe Ramírez (Wesleyan, US).