

Rational approximation of points lying on submanifolds of Euclidean space

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Abstract

When a property holds for almost every point in Euclidean space, it is natural to ask whether it continues to hold generically on some submanifold of Euclidean space. So, for example, Khintchine's theorem gives a condition under which almost all points in Euclidean space are rationally approximable at some given rate. Does this condition still guarantee the same for almost all points on an embedded surface? I will discuss this, and other similar questions arising in Diophantine approximation.