Metric diophantine approximation, old and new

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The well-known relation between the continued fraction of a real number and the geodesic flow on a quotient of hyperbolic plane has a generalization, called Dani correspondence, to a relation between the orbits of a diagonal flow on the space of unimodular lattices and Diophantine properties of vectors. Dani correspondence allows us to compute the measure or Hausdorff dimension of some sets of vectors with certain Diophantine properties using homogeneous dynamics. After we cover Dani correspondence and its consequences, we will look into Diophantine approximation on manifolds.