Title: Equidistribution of expanding translates of curves in homogeneous spaces and its application to Diophantine approximation.

Abstract: We consider an analytic curve $\varphi : I \to \mathbb{M}(n \times m, \mathbb{R}) \hookrightarrow \mathrm{SL}(n+m, \mathbb{R})$and embed it into some homogeneous space G/Γ, and translate it via some diagonal flow $A = \{a(t) : t > 0\} < \mathrm{SL}(n+m, \mathbb{R})$. Under some geometric conditions on φ, we prove the equidistribution of the evolution of the translated curves $a(t)\varphi(I)$in G/Γ. As an application, we prove that for almost all points on the curve, the Dirichlet's theorem can not be improved. This is a joint work with Nimish Shah.