THE TOPOLOGICAL CLOSURE OF SEMIALGEBRAIC FLOWS ON COMPACT NILMANIFOLDS.
(JOINT WORK WITH Y. PETERZIL)

If $M$ is a compact nilmanifold then $M = G/\Lambda$, where $G$ is a real algebraic unipotent group, and $\Lambda < G$ a discrete co-compact subgroup. Let $\pi: G \to M$ be the projection.

In this talk we consider the topological closure $\text{cl}(\pi(X))$ for a semi-algebraic subset $X$ of $G$ and describe it in terms of images of semi-algebraic families of cosets of real algebraic subgroups of $G$.

More generally, our result holds when $X \subseteq G$ is definable in any o-minimal structure over $\mathbb{R}$. 