

**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 $\pi: G \rightarrow M$ 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} .