

## Statistics and Data Science Seminar

### *Small-time asymptotics of subRiemannian Hermite functions*

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**Abstract:** As in the Riemannian setting, a subRiemannian heat kernel is controlled by the geometry of the underlying manifold. In particular, the asymptotic behavior of the kernel can reveal certain geometric and topological data. We study the logarithmic derivatives of subRiemannian heat kernels in some cases and show that, under appropriate scaling, they converge to their analogues on stratified groups. This gives one quantification of the now standard idea that stratified groups play the role of the tangent space to subRiemannian manifolds.

This is joint work with Joshua Campbell.

Wednesday, October 12 at 4:00 PM in SEO 636