

1134-55-96

**Apurva Nakade\*** ([anakade1@jhu.edu](mailto:anakade1@jhu.edu)), 505 W Univ Pkwy, Apt B3, Baltimore, MD 21210.

*Manifold calculus and the h-principle.*

Manifold calculus is a form of functor calculus that tries to analyze contravariant functors from some category of manifolds to spaces by providing *Taylor approximations* for them. In current literature there are very few functors for which the Taylor approximations are known. In this talk we'll use h-principle to construct several examples of *analytic functors* in the sense of manifold calculus. We'll prove that the analytic approximation of the Lagrangian embeddings functor is the totally real embeddings functor. As a byproduct we'll also provide a geometric model for the *embeddings modulo immersions* functor. (Received August 23, 2017)