

1056-Z1-1597      **Nicholas Hamblet\*** ([nick.hamblet@gmail.com](mailto:nick.hamblet@gmail.com)), 1039 Preston Ave Apt #4, Charlottesville, VA 22903. *The Orthogonal Tower for  $\Sigma^\infty \text{Emb}(\coprod_m D^n, V)$* . Preliminary report.

Given a manifold  $M$ , we wish to study the (suspension spectrum of the) space of embeddings of  $M$  into a vector space  $V$ , as a functor of  $V$ . In this talk, we will discuss the case when  $M$  is a disjoint union of copies of the standard open ball  $D^n$  in  $\mathbb{R}^n$ , and consider the space of affine embeddings. We provide a natural homotopy limit model for  $\Sigma^\infty \text{Emb}(\coprod_m D^n, V)$  and show how to use it to obtain the Orthogonal Tower for this functor. This tower provides best polynomial approximations, in the sense of Weiss, to the embedding functor. (Received September 22, 2009)