GREGORY CHAMBERS, University of Chicago
Existence of homotopies with prescribed Lipschitz constants

Given Riemannian manifolds M and N, consider maps $f : M \to N$ and $g : M \to N$ which are homotopic and L-Lipschitz. Gromov asked the following question: Does there exist a homotopy from f to g which is itself L-Lipschitz? In this talk, I will describe recent work with D. Dotterrer, F. Manin, and S. Weinberger which partially answers this question. I will also outline some interesting applications of our results.