Speaker: Michael Cohen

Title: On the large-scale geometry of diffeomorphism groups of 1-manifolds

Abstract: I'll discuss the problem of identifying the quasi-isometry type of a particular class of non-locally compact Polish groups: the groups of C^k-diffeomorphisms of compact manifolds. This question makes sense in the context of a certain theoretical framework introduced by Rosendal, and I'll recall some of the details of this framework. Working in the special context of the one-dimensional manifolds, the interval and the circle, I'll characterize the local property (OB) in the associated C^k diffeomorphism groups. For $k=1$, this characterization may be used to show that the diffeomorphism group is quasi-isometric in a natural way to the infinite-dimensional Banach space $C[0,1]$.