Abstract

As pointed out by Pugh, Shub and Wilkinson, one of the major understanding technical barriers the to of Anosov diffeomorphisms is the fact that the splittings (and the invariant foliations) are not in general differentiable. In this talk, we review the known results of differentiable Anosov splittings and invariant foliations, where one encounters the so-called bunching conditions. We will discuss the possibility of removing those bunching conditions in the local case, which may require some new ideas. Moreover, the new result will be applied to the linearization problem.