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Title: Smooth Models for Fibered Partially Hyperbolic Systems

Abstract: I will discuss the existence and construction of smooth models for fibered partially hyperbolic systems. Fibered partially hyperbolic systems are partially hyperbolic diffeomorphisms that have an integrable center bundle, tangent to a continuous invariant fibration by invariant submanifolds. I will explain how under certain restrictions on the fiber, any fibered partially hyperbolic system over a nilmanifold is leaf conjugate to a smooth model.