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Luis Guijarro and **Fred Wilhelm*** (fred@math.ucr.edu), Department of Mathematics, Univ. of Calif., Riverside, CA 92521. *A Focal Radius Finiteness Theorem.*

I will discuss the proof of the following optimal finiteness theorem that is joint work with Luis Guijarro.

Theorem: *Let M be a compact Riemannian manifold. Given $D, r > 0$ the class S of closed Riemannian manifolds that can be isometrically embedded into M with focal radius $\geq r$ and intrinsic diameter $\leq D$ is precompact in the $C^{1,\alpha}$ -topology. In particular, S contains only finitely many diffeomorphism types. (Received July 02, 2017)*