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Regina Rotman* (rina@math.toronto.edu), Toronto, Ontario M5S2E4, Canada. *Quantitative Serre's theorem on closed Riemannian manifolds.*

A well-known result of J. P. Serre states that given any pair of points on a closed Riemannian manifold there exists infinitely many geodesics connecting them.

Let M be a closed Riemannian manifold of dimension n and diameter d . The question we are interested in is whether for any pair of points on M there exists at least k geodesics of length bounded in terms of k , d and n . We will discuss various existing results. (Received January 18, 2021)