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A pair of points in a Riemannian manifold is said to be secure if all geodesics joining the two points can be blocked by removing a finite number of points from the manifold. A finite police force could “secure” all (geodesic) routes between the two points.

All geodesic paths joining two non antipodal points in a sphere can be blocked if we remove two points, one from each of the two arcs into which the points divided the unique great circle containing the two points. In contrast, any pair of points in a manifold with constant negative is insecure: the geodesics joining the two points cannot be blocked by removing any finite set of points. This was proved recently by Gutkin and Schroeder.

The talk will outline a simple argument which generalizes Gutkin and Schroeder’s result to show that if  $M$  is a compact Riemannian manifold with no conjugate points whose geodesic flow has positive topological entropy, then any pair of points in  $M$  is insecure. The exponential growth of the number of geodesics joining the two points plays a crucial role. (Received February 13, 2006)