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## Minimal geodesics and insecurity of surfaces
### (joint work with Eugene Gutkin)

### Abstract

A pair $(p, q) \in M \times M$ of points in a Riemannian manifold $M$ is called a secure pair if there exists a finite set $A = A(p, q)$ in $M$ such that every geodesic segment connecting $p$ and $q$ contains a point of $A$ in its interior, and insecure otherwise. I will present results on the set of insecure pairs on compact surfaces of positive genus. These results are related to Aubry-Mather theory and weak KAM methods.