

A general result on ergodicity of plane billiards
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Bunimovich, Wojtkowski, Donnay, Markarian and others proved that a large class of plane billiards are hyperbolic (non-zero Lyapunov exponents). In this joint work with Gianluigi Del Magno (CEMAPRE-ISEG, Lisbon) we proved that almost all of them are mixing and Bernoulli. The proof is based on a general result by ourselves on local ergodicity for non-uniformly hyperbolic symplectic maps with singularities. This result (ETDS 33, 2013) generalizes Liverani-Wojtkowski's version of the seminal results by Sinai.