Katok, A. [Katok, Anatole B.]
Bernoulli diffeomorphisms on surfaces.

A diffeomorphism $f$ of a manifold $M$ to itself is called Bernoulli if it preserves some smooth probability measure on $M$ and if, with respect to this measure, $f$ is metrically isomorphic to a Bernoulli shift. The author constructs Bernoulli diffeomorphisms on the disk in such a way that the construction yields a Bernoulli diffeomorphism on every two-dimensional manifold. His method is based on the connection between Ljapunov characteristic exponents and ergodic properties of classical dynamical systems established by Ja. B. Pesin [Uspehi Mat. Nauk 32 (1977), no. 4(196), 55–112; MR0466791].

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