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Billiards on general tables with random reflections

We study stochastic billiards on general tables: a particle moves according to its constant velocity inside some domain D in R^d until it hits the boundary and bounces randomly inside according to some reflection law. We assume that the boundary of the domain is locally Lipschitz and almost everywhere continuously differentiable. The angle of the outgoing velocity with the inner normal vector has a specified, absolutely continuous density. The cosine density is of special interest.

Joint works with Serguei Popov, Gunter Schutz and Marina Vachkovskaia.