

# Titel: Random perturbations of hyperbolic dynamics

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## Abstract:

A sequence of large invertible matrices given by a small random perturbation around a fixed diagonal and positive matrix induces a random dynamics on a high-dimensional sphere. For a certain class of rotationally invariant random perturbations it is shown that the dynamics approaches the stable fixed points of the unperturbed matrix up to errors even if the strength of the perturbation is large compared to the relative increase of nearby diagonal entries of the unperturbed matrix specifying the local hyperbolicity. The talk is based on joint work with Hermann Schulz-Baldes.