

**Title:** Quenched decay of correlations for nonuniformly hyperbolic random maps with an ergodic driving system

**Abstract:** In this article we study random tower maps driven by an ergodic automorphism. We prove quenched exponential correlations decay for tower maps admitting exponential tails. Our technique is based on constructing suitable cones of functions, defined on the random towers, which contract with respect to the Hilbert metric under the action of appropriate transfer operators. We apply our results to obtain quenched exponential correlations decay for several non-iid random dynamical systems including small random perturbations of Lorenz maps and Axiom A attractors.

Joint work with J. F. Alves, W. Bahsoun, P. Varandas.