

**Title:** Phase transition for the minimal distance between orbits in random dynamical systems

**Abstract:** Given two independent starting points  $x$  and  $y$  in a dynamical system, one can measure how close their orbits get within time  $n$ : the decay rate of this quantity is given by a dimension-like quantity that can be expressed geometrically. Consider now a random dynamical systems, and the quenched analogue of the above question where  $x$  and  $y$  are taken in the same fiber. We compute again the decay rate of typical distance between orbits in this setting, and show that two dimension-like exponents show up, roughly measuring on-diagonal and off-diagonal behavior, one or the other being predominant depending on the system. In particular, along a smooth family of random dynamical systems, we show that the dominating exponent may behave in a non-smooth way.

Joint work with Jerome Rousseau and Manuel Stadlbauer