J. Rousseau,"On the shortest distance between orbits and the longest common substring problem"
We study the behaviour of the shortest distance between orbits and show that under some rapidly mixing conditions, the decay of the shortest distance depends on the correlation dimension. For random processes, this problem corresponds to the longest common substring problem and we will explain how the growth rate of the longest common substring is linked with the Renyi entropy. We will also extend these studies to the realm of random dynamical systems. This includes some joint work with Vanessa Barros and Lingmin Liao and some joint work with Adriana Coutinho and Rodrigo Lambert.