

Abstract

We present a model of the establishment and maintenance of communication between mobile agents. We assume that the agents move through a fixed environment modeled by a motion graph, and are able to communicate if they are at distance at most d . As the agents move randomly, we analyse the evolution in time of the connectivity between a set of w agents, asymptotically for a large number N of vertices, when w also grows large. The particular topologies of the environment we study here are the cycle and the toroidal grid.