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.