In modern overlay networks high rates of churn, i.e. nodes joining and leaving the networks, are the rule rather than the exception.

In this talk we address the problem of maintaining a network's connectivity if the churn is high as $O(n/\text{polylog}(n))$ where n is the number of nodes in the network.

In particular, we assume that the churn is controlled by a t-late adversary.

This adversary has full knowledge of the network's topology from t rounds ago.

However, it is oblivious to the current topology, the nodes' internal states and the content of the exchanged messages.

In each round it can pick an arbitrary set of nodes that leave network immeadiatly and a set of same cardinality that joins the network.

We sketch a promising solution aims to maintain a connected topology by spreading the nodes through random walks and rapidly changing the connections.