Young Women in Topology Meeting 2013
June 7-9, 2013 University of Bonn

Talk 9:
Marjan Safi-Samghabadi, Durham UK

Configuration spaces of round robots on a graph

We consider a fixed metric graph G and 2 robots as metric balls that are allowed to move on G without collisions. All centres (x,y) of non-colliding robots form the configuration space of 2 robots on G. We present an algorithm to determine if such a configuration space is path-connected, namely whether 2 robots can move without collisions between two given configurations.