1037-05-317 **Dmitry N Kozlov*** (dfk@math.uni-bremen.de), Department of Mathematics, University of Bremen, Postfach 330440, D-28334 Bremen, Germany. *Topological space of metric graphs.* Preliminary report.

In this talk we introduce the topological space of metric graphs with n marked points. Though interesting in its own right, our main motivation here is the study of topological properties of the tropical moduli space of curves with n marked points. This space was recently defined by Mikhalkin. It plays an important role in tropical geometry, and contains as a special case the space of phylogenetic trees, which was studied by Billera, Holmes and Vogtmann in 1999. We present several combinatorial homotopies which will simplify the tropical moduli space substantially and in the end allow us to present it as a homotopy colimit. (Received February 05, 2008)