Adam Mickiewicz University
Faculty of Mathematics and Computer Science

Geometry and Topology Seminar

1:45 pm, Wednesday, May 29, 2019
B1-37, Collegium Mathematicum

Speaker: Łukasz Michalak (Adam Mickiewicz University in Poznań)

Title: On Reeb graphs and epimorphisms onto free groups

Abstract:

I will talk about Reeb graphs of Morse functions and realization problems related to them. The Reeb graph of a function on a manifold is defined by contracting the connected components of its level sets. I will describe connections between Reeb graphs, epimorphisms onto free groups and systems of nonseparating 2-sided submanifolds. This allows us to study algebraic properties of epimorphisms onto free groups, such as the number of their equivalence classes or ranks of maximal epimorphisms.