THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE  

Seminar in Geometry and Topology  

Room 261, Ziskind Building  
on Thursday, Dec 18, 2014  
at 14:00  

PLEASE NOTE UNUSUAL DAY AND TIME  

Andrei Gabrielov  
Purdue University  

Lipschitz contact equivalence of functions in two variables  

Abstract:  

We consider germs at the origin in $\mathbb{R}^2$ of continuous functions definable in a polynomially bounded o-minimal structure (e.g., semialgebraic or subanalytic). We construct a complete invariant of an equivalence class of such functions with respect to Lipschitz contact equivalence. A similar construction produces a complete bi-Lipschitz invariant for a germ of a real definable two-dimensional surface in $\mathbb{R}^n$. This is joint work with L. Birbrair and A. Fernandes (University of Ceara, Fortaleza, Brazil)