



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Seminar in Geometry and Topology

Room 261 ,Ziskind Building
on Tuesday, Nov 18, 2014
at 16:00

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The moduli stack of non-archimedean stable maps

Abstract:

Tropical geometry is a powerful technique to study enumerative problems in algebraic geometry. The theory of Berkovich spaces gives us a natural framework to apply tropical techniques in a much wider context. I will begin by explaining motivations from mirror symmetry. Then I will introduce a notion of Kähler structures in non-archimedean geometry. I will explain the construction of the moduli stack of non-archimedean stable maps and an analog of Gromov-Fs compactness theorem in the non-archimedean setting. They are the first steps of enumerative non-archimedean geometry. I will also discuss the tropicalization of the space of stable maps. They are based on arXiv 1401.6452 and 1407.8444. If time permits, I will discuss a related joint work with M. Porta concerning higher non-archimedean stacks and GAGA theorems.