

Adam Mickiewicz University
Faculty of Mathematics and Computer Science

GEOMETRY AND TOPOLOGY SEMINAR

1:45 PM, Monday, September 24, 2018
B1-37, Collegium Mathematicum

Speaker: Ai Guan (Lancaster)

Title: Gauge equivalence for complete L-infinity algebras

Abstract:

Maurer-Cartan elements in differential graded Lie algebras, and more generally L-infinity algebras, appear in many areas of mathematics, such as homotopical algebra, differential geometry and deformation theory. In this talk we will show how gauge equivalence of Maurer-Cartan elements can be characterized as a left homotopy in a model category sense. We will then discuss some of the consequences of this characterization: an entirely homotopical proof to Schlessinger-Stasheff's theorem, a short formula for gauge equivalence, and a strong homotopy generalisation of T. Voronov's non-abelian Poincare lemma.