

SCMS Seminar



THOM POLYNOMIAL OF MULTI-SINGULARITIES AND KAZARIAN'S UNIVERSALITY CONJECTURE

Speaker: Xiping Zhang
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Time: 9:20 am - 9:50 am, Friday, October 19, 2018

Venue: Room 102, Shanghai Center for Mathematical Sciences

Abstract:

The Thom polynomial of a singularity is one of the key invariants in singularity theory and has been applied into various areas. It was conjectured by René Thom that for a generic map of smooth manifolds, the Thom polynomial of its singularity locus is given by a universal polynomial evaluating on the Chern classes of the relative tangent bundle. This universal polynomial depends only on the singularity type. For mono singularities, the universality conjecture has been proved, however for general multisingularities the problem is wild open. In 2003 M. Kazarian proposed a principle proof using classifying space of cobordism theory. But the argument in the proof, as well as the transversal condition assumption are quite subtle. In this talk I will review some details of this conjecture and propose some workable cases.