Mirror Symmetry for Quasi-Homogeneous Singularities

HIMAL RATHNAKUMARA, TYLER JARVIS, Brigham Young University, Provo — I will present an introduction to mirror symmetry in the context of string theory. Then I will describe an instance of mirror symmetry for singularities defined by quasi-homogeneous polynomials in weighted projective spaces. Milnor rings and the FJRW (Fan-Jarvis-Ruan-Witten) rings associated with these singularities and their relation to the Landua-Ginzburg A model and the Landua-Ginzburg B model will be explained. Results of the calculations for certain singularities for which the mirror symmetry conjecture has been verified will be presented.

Himal Rathnakumara
Brigham Young University, Provo

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