

BK Special Lecture Series in Geometry

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9월 26일 (월)

과학관 262호

14:00 Lecture 1. Mirror Symmetry as a toric duality

I will introduce Mirror Symmetry as a duality issued from toric geometry. Based on this, I will describe a mirror construction and mirror conjecture of N. Takahashi going back to 2001. This concerns the log K3 surface (S,E) given by the pair of the projective plane and an elliptic curve.

15:00 Lecture 2. Log Mirror Symmetry

Consider the log K3 surface (S,E) given by the pair of the projective plane and an elliptic curve. In 2001, N. Takahashi built the mirror family M to (S,E) and predicted how to extract from period integrals of M the log Gromov-Witten invariants of maximal tangency of (S,E) . In joint work with Ruddat and Siebert, we prove this conjecture. In fact, we work more generally with the mirror constructions of the Gross-Siebert programme. We form the periods on the Gross-Siebert mirror family and prove that they computes the log Gromov-Witten invariants.

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