Hypergeometric mirror maps

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Résumé

Mirror maps are power series which occur in mirror symmetry as the inverse for composition of power series of the form $q(z) = \exp(\omega 2(z)/\omega 1(z))$, called canonical coordinates, where $\omega 1(z)$ and $\omega 2(z)$ are particular solutions of the Picard-Fuchs equation associated with certain one-parameter families of Calabi-Yau varieties. In several cases, the mirror maps have integral coefficients. In this talk, we will give an overview of the integrality properties of mirror maps associated to the generalized hypergeometric equations. We will end with some open problems.

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