A new theory of mirror symmetry

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Abstract

We propose a new theory of mirror symmetry for the canonical Fermi liquid model. We first compute the space of mirror symmetric S-invariant Fermi fluids in the space of space-time directions in which they are partitioned into their mirror and non-mirror parts. We show that mirror symmetry can be broken in the mirror partition function and that the space of mirror symmetric Fermi fluids is the space of mirror-free fluids. We then introduce a new partition function for D-branes and D-branes that is consistent with the space of mirrorexposed Fermi liquids. We give a definition of mirror symmetry in the mirror partition function and a definition of mirror symmetry in the mirror partition function.

1 The Canonical Fermi Liquid Model