

Hosono, Shinobu**Central charges, symplectic forms, and hypergeometric series in local mirror symmetry.**
(English) [Zbl 1114.14025](#)

Yui, Noriko (ed.) et al., Mirror symmetry V. Proceedings of the BIRS workshop on Calabi-Yau varieties and mirror symmetry, December 6–11, 2003. Providence, RI: American Mathematical Society (AMS); Somerville, MA: International Press (ISBN 0-8218-4251-X/pbk). AMS/IP Studies in Advanced Mathematics 38, 405-439 (2006).

Summary: We study a cohomology-valued hypergeometric series which naturally arises in the description of (local) mirror symmetry. We identify it as a central charge formula for BPS states and study its property from the viewpoint of Kontsevich's homological mirror symmetry. In the case of local mirror symmetry, we will identify a symplectic form, and will conjecture an integral and symplectic monodromy property of a relevant hypergeometric series of Gel'fand-Kapranov-Zelevinski type.

For the entire collection see [\[Zbl 1104.14001\]](#).

MSC:

- [14J32](#) Calabi-Yau manifolds (algebraic-geometric aspects)
- [14D05](#) Structure of families (Picard-Lefschetz, monodromy, etc.)
- [14D07](#) Variation of Hodge structures (algebraic-geometric aspects)
- [32Q20](#) Kähler-Einstein manifolds
- [32Q25](#) Calabi-Yau theory (complex-analytic aspects)

Cited in **19** Documents

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