

**Iritani, Hiroshi**

**Quantum cohomology and periods. (Cohomologie quantique et période.)** (English. French summary) [Zbl 1300.14055](#)

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Motivated by Givental's work on mirror symmetry for toric complete intersections, the author finds an explicit relationship between solutions to the quantum differential equation and the periods for toric orbifold mirror pairs. The author also gives a detailed study of the mirror isomorphism of variations of Hodge structure for a mirror pair of Calabi-Yau hypersurfaces and shows that the A-model and B-model periods are equal. Several interesting questions are raised in the last section.

Reviewer: [Hao Xu \(Pittsburgh\)](#)

**MSC:**

- [14N35](#) Gromov-Witten invariants, quantum cohomology, Gopakumar-Vafa invariants, Donaldson-Thomas invariants (algebraic-geometric aspects)
- [14D05](#) Structure of families (Picard-Lefschetz, monodromy, etc.)
- [14D07](#) Variation of Hodge structures (algebraic-geometric aspects)
- [14J33](#) Mirror symmetry (algebraic-geometric aspects)
- [32G20](#) Period matrices, variation of Hodge structure; degenerations
- [53D37](#) Symplectic aspects of mirror symmetry, homological mirror symmetry, and Fukaya category

Cited in <b>1</b> Review Cited in <b>19</b> Documents
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**Keywords:**

[quantum cohomology](#); [mirror symmetry](#); [gamma class](#); [K-theory](#); [period](#); [oscillatory integral](#); [variation of Hodge structure](#); [GKZ system](#); [toric variety](#); [orbifold](#)

**Full Text:** [DOI](#) [Link](#) [arXiv](#)

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