Differential equations aspects of quantum cohomology

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アブストラクト:

The quantum differential equations can be regarded as equations with certain universal properties which are of wider interest beyond quantum cohomology itself. We shall give some evidence for the "unreasonable effectiveness" of these quantum differential equations (or quantum D-module). The theory is remarkably effective in packaging geometric information; we illustrate this with reference to simple examples of Gromov-Witten invariants, variations of Hodge structure, the Reconstruction Theorem, and the Crepant Resolution Conjecture.