

# Three views of the J-function

Tom Coates  
Department of Mathematics  
Harvard University

## **Abstract**

The J-function is a generating function for Gromov–Witten invariants which has played an important role in work on the mathematics of mirror symmetry. We will discuss its connection to quantum cohomology, its role in Givental’s geometric approach to Gromov–Witten theory, and how the J-function of  $X$  can be expressed in terms of Gromov–Witten theory of the space  $X \times \mathbf{C}$ .