Gromov-Witten theory of curves and Topological Quantum Field Theory

Jim Bryan

Department of Mathematics University of British Columbia 1984 Mathematics Road Vancouver, British Columbia CANADA V6T 1Z2

Abstract

We show how the theory of relative stable maps leads to a rich and powerful algebraic structure on the Gromov-Witten theory of curves. A main application is new computations of the local Gromov-Witten invariants of curves in Calabi-Yau three folds.