Abstract

Gromov-Witten theory and its various generalizations construct invariants from various complicated geometric structures. Such invariants provide information encoded in formal power series in infinitely many variables. Emergent geometry is a way to pack the information in some geometric structures such as algebraic curves. We will explain the ideas by the examples of Witten-Kontsevich tau-function and the counting of Grothendieck's dessins d'enfants.