

Alexander Alexandrov

KP integrability of triple Hodge integrals

Enumerative geometry invariants are closely related to integrable systems. In particular, unexpectedly often the generating functions of the enumeration geometry invariants are tau-functions of integrable hierarchies of KP type. In my talk, I will describe the identification of the generating function of the triple Hodge integrals satisfying the Calabi-Yau condition with a tau-function of the KP hierarchy. In this identification, an infinite-dimensional group acting on the space of the solutions of the KP hierarchy plays an important role. The corresponding cubic cut-and-join description will also be constructed.