
Speaker: Xiaoabo Liu
Peking University

Tuesday, October 6, 2015

11:00 AM

258 Hurley Hall

Title: Connecting the Kontsevich-Witten and Hodge tau-functions by the Virasoro operators

Abstract:

Kontsevich-Witten tau-function and the Hodge tau-function are generating functions for two types of intersection numbers on moduli spaces of stable curves. Both of them are tau functions for the KP hierarchy. In this talk, I will describe how to connect these two tau-functions by differential operators belonging to the $GL(\infty)$ group. Indeed, these two tau-functions can be connected using Virasoro operators. This proves a conjecture posted by Alexandrov. This is a joint work with Gehao Wang.