

Benoit Collins (ENS Paris):

Itzykson-Zuber integrals and free probability

Abstract: In this talk, I will present a combinatorial way of computing integrals of polynomial functions on unitary groups. It has applications to free probability theory; in particular, it enables us to establish a convergence result for the Itzykson-Zuber integral and to relate its large dimension limit to Voiculescu's R-transform.