

Dunkl Operators, Random Matrices and Hurwitz Numbers

jeudi 7 mars 2024 10:30 (50 minutes)

This talk is concerned with selected probabilistic aspects of Dunkl operators. In the first part, I'll revisit Cepa and Lepingle study of particles on the real line then I'll show how it extends to radial Dunkl processes associated to reduced root systems. In the second part, I'll talk about the reflected Brownian motion in Weyl chambers. In this respect, I'll exhibit its construction using folding operators and provide the Tanaka-type formula it satisfies. The last part is devoted to the mysterious occurrence of simple Hurwitz numbers in the expression of the Dunkl intertwining operator and in particular in the generalized Bessel function (HCIZ integral).

Orateur: Prof. DEMNI, Nizar (Aix-Marseille Université)