ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Down-step statistics in generalized Dyck paths

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Chaired by Barbara Kaltenbacher | Department of Mathematics

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https://classroom.aau.at/b/anw-ezd-k9g

ABSTRACT

In this talk we will discuss the enumeration of the number of down-steps between pairs of up-steps in k_t-Dyck paths, which are a generalization of Dyck paths consisting of steps $\{(1,k),(1,-1)\}$ such that the path stays (weakly) above the line $y=-t$. These down-step statistics have applications in other combinatorial enumeration problems. We will also establish a connection between these k_t-Dyck paths and binary matrices used in coding theory, connecting the two areas of study and leading to a new interpretation for the Catalan numbers.

We hope to see you there!