

Discrete Mathematics & Combinatorics

Catalan lattices and bijections

Donald E. Knuth

Stanford, USA

Catalan lattices are families of *different* lattices on the same underlying objects, leading to new kinds of structure that merit further exploration. The latter are bijections of drastically different character: in one case we can decode simultaneously while encoding, but in the other we can decode only by taking a completely encoded object and running the process backwards.