## 1171-05-223

Matias K von Bell<sup>\*</sup>, 706 Patterson Office Tower, Lexington, KY 40508, and Rafael S. Gonzales D'Leon, Fracisco Mayorga Cetina and Martha Yip. A unifying framework for the nu-Tamari lattice and principal order ideals in Young's lattice.

The nu-caracol flow polytope has normalized volume given by the number of nu-Dyck paths, that is, lattice paths weakly above a chosen lattice path nu. We study two DKK triangulations of this flow polytope, each having a combinatorially interesting dual graph obtainable via nu-Dyck paths. The first triangulation has as its dual graph the Hasse diagram of the nu-Tamari lattice, introduced by Préville-Ratelle and Viennot, and it gives a new geometric realization of the nu-Tamari complex introduced by Ceballos, Padrol, and Sarmiento. The second triangulation has as its dual graph the Hasse diagram of a principal order ideal in Young's lattice determined by nu. This work generalizes and unifies results on the dual structure of two subdivisions of a polytope studied by Pitman and Stanley. This talk is based on joint work with Rafael S. González D'León, Francisco A. Mayorga Cetina, and Martha Yip. (Received August 16, 2021)