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Geometry of generalized associahedra

In this talk, we will consider polytopal realizations of generalized associahedra that are obtained from a permutahedron of a finite Coxeter group. Generalized associahedra are fans which encode the combinatorics and geometry of finite type cluster algebras. In the case of our constructions, the link is made via the theory of Cambrian fans. More precisely, we will discuss recent results and open problems regarding these realizations. Our motivation is to refine our understanding of the combinatorial and geometric properties of finite Coxeter groups that are carried through the construction and may be applied to the study generalized associahedra.