
FRÉDÉRIC CHAPOTON, CNRS et Université de Strasbourg

From Associahedra to Stokes Polytopes

Associahedra form a classical family of polytopes, with many connections ranging from homotopy to cluster algebras. They have been generalized in several different ways. This talk will present a generalization due to Baryshnikov, and motivated initially by deformations of quadratic differentials. These polytopes seem to share many of the good properties of associahedra; in particular one can define analogues of the Tamari lattices. The underlying combinatorics is that of quadrangulations, and one can expect close connections with representation theory through exceptional sequences.