

1112-05-178

Laura Escobar and **Karola Meszaros*** (karola@math.cornell.edu). *Realizing subword complexes via triangulations of root polytopes.*

Subword complexes are simplicial complexes introduced by Knutson and Miller to illustrate the combinatorics of Schubert polynomials and determinantal ideals. They proved that any subword complex is homeomorphic to a ball or a sphere and asked about their geometric realizations. We show that a family of subword complexes can be realized geometrically via triangulations of root polytopes. This implies that a family of β -Grothendieck polynomials are special cases of reduced forms in the subdivision algebra of root polytopes. Based on joint work with Laura Escobar. (Received August 02, 2015)