

962-52-680

Jesus A De Loera* (deloera@math.ucdavis.edu), Dept. of Mathematics, Univ. of California, One Shields Ave., Davis, CA 95616, and **Bernd Sturmfels**, Dept. of Mathematics, Univ. California, Berkeley, CA. *Lattice points in flow polytopes*. Preliminary report.

In this talk we will present recent results about the enumeration of lattice points inside flow polytopes. Flow polytopes are integral convex polytopes associated to an acyclic network with capacitated arcs and demand conditions in each node of the network. We discuss the calculation of their Ehrhart polynomial as well as applications to representation theory and combinatorics. This is joint work with Bernd Sturmfels (UC. Berkeley). (Received September 20, 2000)