

Time: Tuesday May 3rd, 2011 9:00am

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4-Dimensional Cyclic Polytopes

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A convex polytope is defined as the convex hull of finitely many points in d dimensions. It can be very difficult to understand the facial structure of a polytope given only its vertices. The cyclic polytopes are a class of polytopes where we can get the facial structure easily from the list of vertices. In this talk, I will show how to do this for the case when the dimension is 4, explain why the cyclic polytopes are important, and discuss a strange property that they exhibit.