VCU Discrete Mathematics Seminar

What are the Face Lattices of the Binary Partition Polytopes?

Prof Jim Lawrence (GMU)

Wednesday, Oct. 23
1:00-1:50 EDT

In person! in 4145 Harris Hall, and Zoom @
`https://vcu.zoom.us/j/92975799914`
`password=graphs2357`

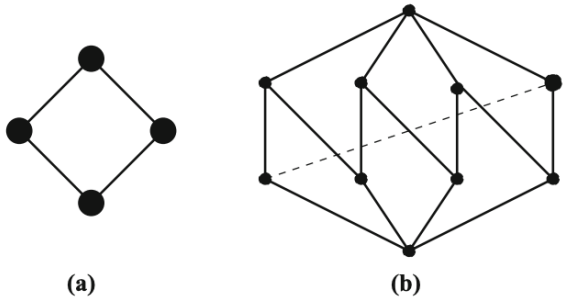

FIGURE 1. Interval lattices

Starting in dimensions 1 and 2 with the interval and the square, the binary partition polytope B_n of dimension n ($\geqslant 2$) is a polytope which "looks like" the lattice of faces of the binary partition polytope of dimension $n-1$. The faces of B_{n-1} and the vertices of B_n correspond to the (integer) partitions of 2^n into powers of 2. It is an open problem to devise a "good" way to compute the lattice operations ("join" and "meet") on the binary partitions.

For the DM seminar schedule, see:

`https://go.vcu.edu/discrete`