

Connectivity and Linkedness of the Graph of Cubical Polytopes



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Graphs of polytopes encode much information about the polytopes. The best known result on polytopes, due to Steinitz (1922), is about their graphs: graphs of 3-dimensional polytopes are precisely those that are 3-connected and planar.

The first part of the talk will be about graphs of a cubical d -polytopes, minimum separators of cardinality, what happens when you remove the vertices of the separator from the graph.

In the second part of the talk Hoa will present on a stronger than connectivity property, so-called linkedness. Establishing the the maximum possible linkedness for such a class of polytopes.

In the last part of the talk, for future research, Hoa will briefly discuss a colouring problem of polytopes (Hadwiger's conjecture for simplicial polytopes).