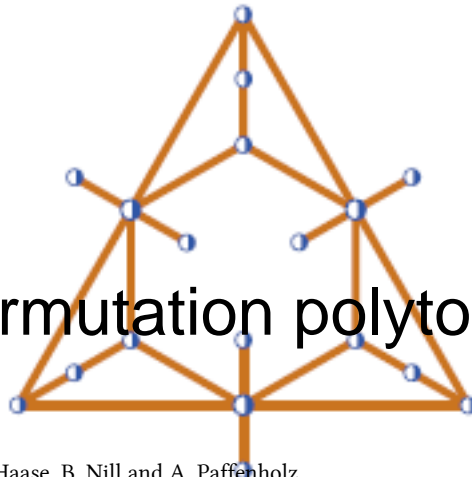


Bled'11 - 7th Slovenian International Conference on Graph Theory

Contribution ID : 207

Permutation polytopes



Content :

I will report on joint work with C. Haase, B. Nill and A. Paffenholz.

The $\{em Birkhoff Polytope\}$, also known as $\{em assignment polytope\}$, is one of the most studied polytopes. It is the convex hull of all permutation matrices.

In the talk I will propose the systematic study of the $\{em Permutation polytopes\}$. They are the convex hull of a subgroup of the group of $n \times n$ permutation matrices.

We will see examples, discuss different notations of equivalence and present some structural results.

As an application we will classify the ≤ 4 -dimensional faces of the permutation polytopes.

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