Joswig, Michael; Müller, Benjamin; Paffenholz, Andreas

polymake and lattice polytopes. (English) [Zbl 1391.52019]

Krattenthaler, Christian (ed.) et al., Proceedings of the 21st annual international conference on formal
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Summary: The polymake software system deals with convex polytopes and related objects from geometric
combinatorics. This note reports on a new implementation of a subclass for lattice polytopes. The features
displayed are enabled by recent changes to the polymake core, which will be discussed briefly.

For the entire collection see [Zbl 1196.05001].

MSC:
52B55 Computational aspects related to convexity
05B20 Combinatorial aspects of matrices (incidence, Hadamard, etc.)

Keywords:
polymake system; lattice polytope; Hilbert basis; toric geometry

Software:
LattE; 4ti2; polymake; SageMath; Normaliz; JavaView; nauty; cdd

Full Text: arXiv Link