

The Fourier transform of a polytope, and its zero set

Robins, Sinai - University of São Paulo

We review some of the recent advances in computing Fourier transforms of polytopes, and some of their applications to other fields. For example, if the zero set of the Fourier transform of a polytope contains a lattice L , then P (multi) tiles Euclidean space by its dual lattice L^* . But very little is known about the countable union of curves formed by this zero set.