

**Higashitani, Akihiro**, Characterizations for  $h^*$ -vectors of lattice polytopes

One of the most significant invariants of a lattice polytope is the Ehrhart polynomial encoding the number of lattice points contained in its integer dilation. By a suitable transformation, we obtain the  $h^*$ -polynomial (or  $h^*$ -vector, the sequence of its coefficients) which has many favorable properties. In this talk, after surveying the  $h^*$ -vector of a lattice polytope and its properties, we will focus on the characterization problem on the  $h^*$ -vector and provide some recent results.