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**Benjamin Braun\*** ([benjamin.braun@uky.edu](mailto:benjamin.braun@uky.edu)), 715 Patterson Office Tower, University of Kentucky, Lexington, KY 40506. *Unimodality problems in Ehrhart theory*. Preliminary report.

The  $h^*$  polynomial of a convex lattice polytope  $P$  is a subtle invariant related to geometric and algebraic properties of  $P$ . Unimodality of the coefficient sequence of the  $h^*$  polynomial occurs often, yet the reasons for this are not well-understood. We will survey a selection of recent results regarding  $h^*$ -unimodality and discuss some interesting open problems in this area. (Received January 18, 2015)