1120-05-102 **Charles Brittenham**, **Andrew Carroll** and **T. Kyle Petersen***, Department of Mathematical Sciences, 2320 N. Kenmore, Chicago, IL 60614, and **Connor Thomas**. *Unimodality the hard way.*

Many families of integer polynomials have nonnegative and palindromic coefficients, e.g., h-polynomials of spheres. For such a polynomial, unimodality is equivalent to having a nonnegative g-vector.

A sufficient, but not necessary condition for unimodality is having a nonnegative γ-vector. However, there are γ-vectors with negative entries whose corresponding h-polynomials are unimodal. We will give a straightforward characterization of such γ-vectors, and describe a paradigm for proving unimodality results via thorough understanding of γ-vectors, even when these vectors have negative entries. (Received February 16, 2016)