Joshua P Swanson* (jps314@uw.edu), Connor Ahlbach (ahlbach@math.washington.edu) and Brendon Rhoades (bprhoades@ucsd.edu). *Refined Cyclic Sieving on Words and Tableaux.

The cyclic sieving phenomenon (CSP) introduced by Reiner–Stanton–White encodes the orbit structure of cyclic actions on finite sets in univariate polynomials. Such polynomials are typically combinatorial generating functions–e.g. $q$-binomial coefficients. We will introduce the recent, natural notion of refinement of a CSP. Initial examples arose from the cyclic descent type of a word. More recently, further examples have been uncovered for many skew tableaux, resulting in what we have termed “Euler–Mahonian” refined cyclic sieving. We will explain these results as time allows.

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